

## DOCUMENT RESUME

ED 416 432

CG 028 343

AUTHOR Silvia, E. Suyapa; Thorne, Judy  
TITLE School-Based Drug Prevention Programs: A Longitudinal Study in Selected School Districts. Technical Report.  
INSTITUTION Research Triangle Inst., Research Triangle Park, NC.  
SPONS AGENCY Department of Education, Washington, DC. Planning and Evaluation Service.  
PUB DATE 1997-00-00  
NOTE 82p.; For related documents, see CG 028 341, 342, 344, and 345.  
CONTRACT LC90070001  
PUB TYPE Reports - Research (143) -- Tests/Questionnaires (160)  
EDRS PRICE MF01/PC04 Plus Postage.  
DESCRIPTORS Adolescents; Alcohol Education; Children; \*Data Collection; \*Drug Education; \*Drug Legislation; Elementary Secondary Education; \*Longitudinal Studies; \*Prevention; Program Evaluation; \*Research Methodology; Student Surveys; Substance Abuse  
IDENTIFIERS Drug Free Schools and Communities Act 1986; Elementary Secondary Education Act Title IV

## ABSTRACT

Establishing school-based drug prevention programs was the aim of the Drug-Free Schools and Communities Act of 1986 (DFSCA). The study design and data collection methods for a longitudinal study of the effectiveness of DFSCA are presented in this report. As part of an overall assessment of DFSCA, the report details the methodology used to accomplish the goals of the longitudinal study and it provides supportive evidence for the viability of the study design and the student sample. (The longitudinal study examines student behaviors and attitudes about alcohol and drugs, characteristics of school-based prevention programs in the participating school districts, and the effectiveness of those programs.) Same-grade comparisons are reported on drug use, attitudes, and perception of drug use for a cohort of two age-groups. These comparisons, which serve to establish the validity of the data, also afford a unique look into the potential age-related tendencies for the reported drug use behaviors and attitudes. The student survey instrument is appended. (EMK)

\*\*\*\*\*  
\* Reproductions supplied by EDRS are the best that can be made \*  
\* from the original document. \*  
\*\*\*\*\*

# **School-Based Drug Prevention Programs: A Longitudinal Study in Selected School Districts**

## **Technical Report**

U.S. Department of Education  
Planning and Evaluation Service

1997

U.S. DEPARTMENT OF EDUCATION  
Office of Educational Research and Improvement  
EDUCATIONAL RESOURCES INFORMATION  
CENTER (ERIC)

- ☒ This document has been reproduced as received from the person or organization originating it.
- ☐ Minor changes have been made to improve reproduction quality.
- Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

**BEST COPY AVAILABLE**



# **School-Based Drug Prevention Programs: A Longitudinal Study in Selected School Districts**

## **Technical Report**

1997

Prepared for:

U.S. Department of Education  
Planning and Evaluation Service

Prepared by:

E. Suyapa Silvia  
Judy Thorne

Research Triangle Institute  
P.O. Box 12194  
Research Triangle Park, NC 27709

This report was prepared under contract #LC90070001. The views expressed herein are those of the contractor. No official endorsement by the U.S. Department of Education is intended or should be inferred.

# *Preface*

---

This technical report describes the study design and data collection methods for a longitudinal study of the Drug-Free Schools and Communities Act (DFSCA) State and Local Programs. A separate report details the findings of the study. The Research Triangle Institute (RTI) conducted this study under contract to the U.S. Department of Education (ED).

Congress originally enacted DFSCA in 1986 to establish, operate, and improve drug and alcohol abuse education and prevention programs in communities throughout the nation. As safety in our schools became a more and more pressing concern — as reflected in the national education goals for the year 2000, which include a goal for safe, drug-free, and disciplined schools — Congress reauthorized the DFSCA as the Safe and Drug-Free Schools and Communities Act of 1994, Title IV of the Elementary and Secondary Education Act. It is now referred to as SDFSCA.

The U.S. Department of Education administers the SDFSCA and annually distributes funding to the states based primarily on the number of school-aged youth in each State. States receive SDFSCA State Grant funds through two avenues: (1) state education agencies (SEAs) receive 80 percent of the total state allotment to support school-based programs, and (2) Governors' offices, or agencies designated by the Governors, receive 20 percent for the support of school- or community-based programs for youth. SEAs are required to target 30 percent of their State Grant funds to high-need districts.

This longitudinal study was part of an overall assessment of the DFSCA that included two other studies completed earlier by RTI: (1) an effort to identify and describe effective community-based prevention programs funded through the Governors' DFSCA programs, and (2) a recurring biennial national survey of state-level administration of DFSCA. Findings for both of these studies are detailed in separate reports.

The current study was designed to assess student behaviors and attitudes about alcohol and other drugs, characteristics of school-based prevention programs in the participating school districts, and the effectiveness of those programs.

## *Preface*

---

This report describes the study methodology that was used to accomplish the goals of the longitudinal study and provides supportive evidence for the viability of the study design and the student sample. A copy of the student survey instrument is included as an appendix.

# Contents

---

Chapter 1. Study Design and Methodology .....	1 - 1
Overview .....	1 - 1
Selection of Districts .....	1 - 1
Selection of Schools and Students .....	1 - 3
Establishing a Cooperative Relationship With the Districts and Schools .....	1 - 5
Comparability of District Pairs at Baseline .....	1 - 6
Coordinating the Annual Data Collection Activities .....	1 - 7
Tracking Participating Students .....	1 - 8
Data Collection Methods .....	1 - 11
Annual Survey Response Rates .....	1 - 14
Comparability of Retained Sample vs. Baseline Sample .....	1 - 17
Summary of Data Analysis Techniques .....	1 - 25
Chapter 2. Same-Grade Comparisons .....	2 - 1
Drug Use .....	2 - 1
Attitudes Towards Drug Use .....	2 - 7
Views on Consequences of Drug Use .....	2 - 12
Implications of Findings .....	2 - 14
Appendix A: Student Survey Composition	
Appendix B: Student Survey — Spring 1995	
Appendix C: Example of Supplemental Student Survey Questions	

## *List of Exhibits*

---

Exhibit 1-1.	Baseline Sample Sizes and Survey Response Rates (1992) .....	1 - 5
Exhibit 1-2.	Comparability of Demographic Characteristics Within Each Pair of Study Districts (1992) .....	1 - 6
Exhibit 1-3.	Comparability of Racial/Ethnic Composition of Student Body Within Each Pair of Study Districts (1992) .....	1 - 7
Exhibit 1-4.	Students Enrolled in District Schools: Number and Percent of Baseline .	1 - 10
Exhibit 1-5.	Number of Schools Attended by Participating Students .....	1 - 11
Exhibit 1-6.	Student Survey Response Rates: Number and Percent of Baseline .....	1 - 15
Exhibit 1-7.	Reasons for Student Non-Response: Percent of Baseline Students .....	1 - 15
Exhibit 1-8.	Student Participation in Multiple Years .....	1 - 16
Exhibit 1-9.	Longitudinal Survey Response Rates for Districts: Number and Percent of Baseline Students Completing a Survey During All Four Years of the Study .....	1 - 17
Exhibit 1-10.	Grade, by Sample (1992) .....	1 - 18
Exhibit 1-11.	Age Distribution, by Sample (1992) .....	1 - 19
Exhibit 1-12.	Gender Distribution, by Sample (1992) .....	1 - 19
Exhibit 1-13.	Race/Ethnicity Distribution, by Sample (1992) .....	1 - 20
Exhibit 1-14.	Alcohol Use, by Sample (1992) .....	1 - 21
Exhibit 1-15.	Cigarette Use, by Sample (1992) .....	1 - 21
Exhibit 1-16.	Marijuana Use, by Sample (1992) .....	1 - 22
Exhibit 1-17.	Smokeless Tobacco Use, by Sample (1992) .....	1 - 22
Exhibit 1-18.	Inhalant Use, by Sample (1992) .....	1 - 23
Exhibit 1-19.	Students Who View the Drug as “Bad” to Use, by Sample (1992) .....	1 - 23
Exhibit 1-20.	Percent of Students Who Agreed with Positive or <i>Negative</i> Statements About Themselves, by Sample .....	1 - 24
Exhibit 1-21.	Grade, by Sample .....	1 - 24
Exhibit 1-22.	Gender, by Sample .....	1 - 26

## List of Exhibits

---

Exhibit 1-23.	Race/ethnicity Distribution by Sample (1992) .....	1 - 26
Exhibit 1-24.	Alcohol Use, by Sample (1992) .....	1 - 27
Exhibit 1-25.	Cigarette Use, by Sample (1992) .....	1 - 28
Exhibit 1-26.	Smokeless Tobacco Use, by Sample (1992) .....	1 - 28
Exhibit 1-27.	Inhalant Use, by Sample (1992) .....	1 - 29
Exhibit 2-1.	Lifetime Alcohol Use for Same Grades .....	2 - 1
Exhibit 2-2.	30-Day and Heavy Use of Alcohol for Same Grades .....	2 - 2
Exhibit 2-3.	Lifetime Cigarette Use for Same Grades .....	2 - 3
Exhibit 2-4.	30-Day and Heavy Use of Cigarettes for Same Grades .....	2 - 4
Exhibit 2-5.	Lifetime Marijuana Use for Same Grades .....	2 - 4
Exhibit 2-6.	30-Day and Heavy Use of Marijuana for Same Grades .....	2 - 5
Exhibit 2-7.	Lifetime Inhalant Use for Same Grades .....	2 - 6
Exhibit 2-8.	Lifetime Smokeless Tobacco Use for Same Grades .....	2 - 6
Exhibit 2-9.	Percent of Students Who Agreed With <i>Pro</i> -Drug Statements, for Same Grades .....	2 - 7
Exhibit 2-10.	Percent of Students Who Agreed With <i>Anti</i> -Drug Statements, for Same Grades .....	2 - 8
Exhibit 2-11A.	Percent of Sixth Grade Students in Each Cohort Who Viewed Drugs as “Bad” to Use .....	2 - 8
Exhibit 2-11B.	Percent of Seventh Grade Students in Each Cohort Who Viewed Drugs as “Bad” to Use .....	2 - 9
Exhibit 2-11C.	Percent of Eighth Grade Students in Each Cohort Who Viewed Drugs as “Bad” to Use .....	2 - 9
Exhibit 2-12A.	Percent of Sixth Grade Students in Each Cohort Who Thought Peers View Drugs as “Bad” to Use .....	2 - 10
Exhibit 2-12B.	Percent of Seventh Grade Students in Each Cohort Who Thought Peers View Drugs as “Bad” to Use .....	2 - 11
Exhibit 2-12C.	Percent of Eighth Grade Students in Each Cohort Who Thought Peers View Drugs as “Bad” to Use .....	2 - 11
Exhibit 2-13A.	Percent of Sixth Grade Students in Each Cohort Who Believed Some or All Their Friends Used Drug in the Past 30 Days .....	2 - 12
Exhibit 2-13B.	Percent of Seventh Grade Students in Each Cohort Who Believed Some or All Their Friends Used Drug in the Past 30 Days .....	2 - 13



Exhibit 2-13C. Percent of Eighth Grade Students in Each Cohort Who Believed Some or All Their Friends Used Drug in the Past 30 Days .....	2 - 13
Exhibit 2-14. Percent of Students Who Agreed With Statements About the Consequences of Drug Use, for Same Grades .....	2 - 14

# ***Chapter 1. Study Design and Methodology***

---

## **Overview**

The DFSCA Longitudinal Study is based on a sample of 19 school districts chosen for their prevention program characteristics, from each of which we selected a sample of students from grades 5 and 6 to form the focus of the study. Each year, for four consecutive years (1992 - 1995), we contacted the same group of students to administer a survey containing questions on drug use, attitudes and beliefs towards drugs, self-esteem, and peer pressure. In addition, we collected program data from district and school staff of each participating school district during an annual spring visit. The study is not intended to yield nationally representative samples of schools and students but rather to be illustrative of the types of programs selected for study.

## **Selection of Districts**

We selected districts as pairs, one from each of two groups we refer to as “comprehensive programs” and “comparison programs.” Each pair consisted of districts that had similar demographic characteristics (district enrollment, student racial/ethnic composition, poverty level, and population density) but that had very different prevention programs. Within each pair, one of the districts provided a prevention program that was comprehensive in nature (i.e., had multiple components and provided prevention activities to all students K-12) and had characteristics that, based on the current research in the field, lead us to expect that they would have the best chance of being successful in reducing and/or delaying drug use among students in those districts. The other districts each had a limited number of prevention program components and did not deliver those components to all students K-12. The program components we looked for in identifying comprehensive programs included student instruction, student counseling, user identification and referral, student assistance programs, peer/student support groups, peer counseling, community service, staff training, parent involvement, and community involvement. Because virtually all districts in the country receive at least some DFSCA funding and conduct some types of prevention activities, it was not possible to implement an evaluation design that used control groups to establish the effects of prevention instruction and other services on students’ attitudes, beliefs, and behavior regarding alcohol and other drugs. Consequently, ED conceived a design that would compare outcomes of students in local school districts whose

prevention activities were “comprehensive” with those of students in districts that were operating programs that could be defined as not comprehensive, or “minimal/comparison.”

We began the search for candidate LEAs (local education agencies, or school districts) with comprehensive prevention programs by examining the database we had compiled of responses from the school districts who participated in a 1990 survey of LEAs, a part of the DFSCA Implementation Study. From those 1,800 districts, we first identified candidates for districts with strong or “comprehensive” programs. This process resulted in the identification of approximately 200 school districts as candidate comprehensive programs. Next, we scanned the pool of districts to search for LEAs that had fewer program components than the comprehensive programs and had restricted some or all the components to certain grade groupings (that is, at least some components were not available to all students, K-12). We identified approximately 200 school districts as candidate comparison programs.

Using the list of candidate programs, we contacted and discussed the candidate district programs with the state coordinators for DFSCA and contacted approximately 400 district-level DFSCA coordinators by phone directly to verify our information. Based on this updated information, we eliminated any districts that no longer met the requirements for either comprehensive or comparison programs.

We then selected 34 districts that had the most extensive program components to be the finalists for the comprehensive program group. We categorized these districts in terms of the following demographic characteristics:

- metro status (urban, suburban, rural);
- size of the district enrollment;
- percentage minority student population; and
- geographic region, as defined by the Regional Centers for DFSCA.

Finally, we selected a total of 44 comparison districts that: (1) had much less extensive program components than the comprehensive program candidates and (2) differed from one another in terms of which components they provided. This group of districts was also categorized along the dimensions of demographic characteristics listed above so they could be compared to the comprehensive districts. The final selection of districts included 11 pairs of districts; each pair contained a comprehensive and a comparison district that matched each other

as closely as possible on the demographic characteristics.<sup>1</sup> We selected the pairs so that we obtained a group of districts to participate in the study that reflected the range of diversity on each of these demographic variables. Due to reasons associated with other activities to which districts were already committed, three LEAs declined to participate in the study; the final group of districts for which we gathered student outcome data and program data for four years consisted of 19 districts — one “pair” included one comprehensive district and two comparison districts.

## **Selection of Schools and Students**

**Selection objectives.** The objective in sampling students for this study was to select, within each of the 19 schools districts participating in the longitudinal study, an average of 250 students who were in the fifth grade and 250 students who were in the sixth grade in school year 1991-92. The sampled students were to remain in the study for four school years, or through school year 1994-95.

Where possible, we included more than one elementary school in the study per district, in order to obtain an estimate of the variability within district. It was also desirable, though, to limit the number of schools to some extent so that data collection costs would not increase dramatically and so that we could measure and describe a program that the students were receiving. Therefore, an additional objective was to contain the sample, at least initially, in only one or two “clusters” of schools. By “clusters,” we defined a complex of feeder and receiver schools. In a typical school district, a given high school is the receiver school for two or three junior high or middle schools, each of which is the receiver school for two or three elementary schools. By drawing the sample within as few clusters as possible in a district, the theory was that we would obtain the following advantages:

- (1) The design would minimize the cost of data collection. Though some students would undoubtedly move to other school clusters in the district, the majority would progress through the expected set of schools;
- (2) Fewer schools would have to participate in data collection — we expected that participation in the study would unavoidably place a burden on the schools because of survey administration, staff interviews, and classroom observation; and
- (3) The design would increase the likelihood that the sample students in a given district would experience the same or similar program services and activities.

---

<sup>1</sup>Because we knew that some selected districts might not be able or willing to participate in the study, we selected and recruited 11 pairs of districts rather than the nine we hoped to end up with.

**Selection procedures.** We began the selection of schools and students by first listing all of the schools in the district within “clusters” of feeder/receiver schools such that each school was listed in only one cluster. If a given school sent students to more than one receiver school, then it was listed with the receiver school to which it sent the greatest proportion of students. Any clusters containing fewer than 200 fifth graders or 200 sixth graders were combined with another, adjacent cluster until a minimum size of 200 was reached.

Next we selected a cluster of schools within each district that was as similar as possible to the district as a whole in terms of poverty and ethnic composition. We did not want to select a cluster that did not reflect the district’s demographic characteristics or that was much different from the other clusters in the district in some unique way. In one case, for example, we decided against selecting a cluster that enjoyed a special partnership with the largest employer in town and was therefore favored to receive many benefits not received by other schools in the district. We consulted district administrators and the prevention program coordinator in each district to arrive at the final selection of a cluster. If there was only one cluster in the district, we selected that cluster.

To select the approximate number of students required for the study, we selected whole classrooms within cluster schools. Our target student sample size within each district was 200 to 400 students in each grade (grades five and six); for districts with more than 400 students in one or both of these grades, we selected a sample of schools (as described above), where possible, that would yield the targeted sample size.

As shown in *Exhibit 1-1*, the baseline student samples were of sufficient size, and the response rates for the baseline (year 1) student survey were very high. Sample sizes in the 19 study districts ranged from 244<sup>2</sup> to 912 students. A total of 10,972 students completed the student survey, for an overall response rate of 94.1 percent of the sampled students; response rates within districts ranged from 87.7 percent to 99.2 percent.

In subsequent years, we consulted district and school enrollment records to locate these 10,972 students in the fall and again in the spring. That is, each fall we attempted to locate these same students so that we could find them more easily in the spring for data collection, as described in the section on tracking participating students below.

---

<sup>2</sup>The district with this sample size is very small, and this number represented all of the fifth and sixth grade students during the 1991-92 school year.

**Exhibit 1-1. Baseline Sample Sizes and Survey Response Rates (1992)**

District Pair	District Code	Number of Students		Response Rate
		Sampled	Completed Surveys	
1	2	631	593	93.8%
	3	440	418	95.0%
2	4	620	544	87.7%
	1	727	662	91.1%
3	7	763	715	93.7%
	8	881	850	96.5%
4	9	244	240	98.4%
	11	324	318	98.1%
	10	459	420	91.5%
5	12	693	650	93.8%
	19	461	411	89.2%
6	13	532	520	97.7%
	5	609	604	99.2%
7	14	809	775	95.8%
	18	912	857	94.0%
8	15	459	417	90.8%
	16	874	794	90.8%
9	17	515	511	99.2%
	6	710	673	94.8%
TOTAL		11,663	10,972	94.1%

Interpretation: "Among the 631 students sampled from school district #2, 593 (93.8 percent) completed a survey."

Source: Tracking data, 1992

## Establishing a Cooperative Relationship With the Districts and Schools

Following the final selection of school districts for participation in this study and prior to the first data collection, we made a series of contacts through the education network of states, districts, and schools, to assure that we had the full cooperation and understanding of all involved. The Assistant Secretary of the Office of Elementary and Secondary Education sent a letter about the study to the Chief State School Officer (CSSO) in each of the states with a selected school district; copies of the letter were forwarded to the state DFSCA Coordinators, the district DFSCA Coordinators, and the district Superintendents soliciting their cooperation and participation. We followed this early contact with an official letter of invitation to participate in the study from RTI. We also made personal calls to each state and school district to obtain a commitment to participate and discuss notification procedures. After securing the cooperation of the participating school districts, RTI made an initial visit to each school district to collect preliminary data and materials, select schools and students, and schedule the first on-site data collection visit.

BEST COPY AVAILABLE

To help establish a good foundation for a working relationship between RTI and the sites, we assigned an RTI team leader and an assistant to each site to be the primary contacts for that site; in most cases the lead site visitor stayed with the site assignment for the duration of the study. We also hired a data collector<sup>3</sup> at each site, with the help of the district, to assist us with the preparations for data collection and help conduct the student surveys. These individuals acted as liaisons between the districts and RTI and each year helped coordinate the data collection schedule for the schools and the logistics for administering the student survey. Across all districts, we were able to maintain the same lead on-site data collector for four consecutive years in 13 of the 19 school districts, allowing for a highly stable relationship with the districts and a well-established data collection protocol.

### Comparability of District Pairs at Baseline

As determined at the time of site selection and verified in initial data collection, we selected pairs of districts matched as closely as possible on such demographic characteristics as region of the country, population density, size of district enrollment, district poverty level, and

**Exhibit 1-2. Comparability of Demographic Characteristics Within Each Pair of Study Districts (1992)**

District Pair	District Code	Region of U.S.	Population Density	District Enrollment	Percent in Poverty
1	2	Southwest West	Suburban	5,100	14
	3		Suburban	11,700	9
2	4	West Southwest	Urban	75,200	4
	1		Urban	61,600	10
3	7	West West	Rural	4,500	21
	8		Rural	5,200	18
4	9	N Central	Rural	1,200	8
	11	Midwest	Rural	2,000	4
	10	Midwest	Rural	2,800	10
5	12	South N Central	Urban	60,300	18
	19		Urban	92,000	21
6	13	N Central Northeast	Suburban	9,700	4
	5		Suburban	7,500	4
7	14	Southwest Southwest	Urban	18,700	23
	18		Urban	13,900	24
8	15	North North	Urban	31,900	25
	16		Urban	46,700	30
9	17	South South	Suburban	23,700	23
	6		Suburban	20,600	26

Interpretation: "District pair #1 was comprised of two suburban districts from the west/southwest region. District 2 enrolled approximately 5,100 students, 14 percent of whom lived at or below poverty, while district 3 had approximately 11,700 students, nine percent of whom lived at or below poverty."

Source: District data, 1992

<sup>3</sup>These individuals resided in the local communities and were very familiar with the districts and schools. Many were retired staff members of the district or worked for the district on a part-time basis. Following the first year of the study we also added one or two additional on-site staff at the larger sites to assist with the student surveys.



**Exhibit 1-3. Comparability of Racial/Ethnic Composition of Student Body Within Each Pair of Study Districts (1992)**

District Pair	District Code	Student Ethnicity (%)				
		White	Black	Hispanic	Asian/Pacific	American Indian
1	2	74	3	20	2	1
	3	77	7	12	2	1
2	4	88	1	5	3	3
	1	87	2	10	1	1
3	7	75	1	15	1	9
	8	70	1	16	2	13
4	9	99	1	1	1	1
	11	99	1	1	1	1
	10	92	3	1	1	4
5	12	44	55	1	1	1
	19	31	55	9	3	1
6	13	93	3	2	1	1
	5	92	3	4	3	1
7	14	39	6	53	1	1
	18	30	34	36	1	1
8	15	27	55	15	3	1
	16	42	49	7	1	2
9	17	68	25	1	3	4
	6	64	32	4	1	1

Interpretation: "The percentage of White students in district pair #1 was 74 and 77, respectively, for districts 2 and 3."

Source: District data, 1992

racial/ethnic distribution of the students. *Exhibits 1-2* and *1-3* demonstrate the comparability of the districts on each of these demographic characteristics. There were some differences in region, notably district pairs 5 and 6. While some other pairs fell into two DFSCA regions (corresponding with the Regional Centers), they were in states that were relatively close together (e.g., district pair 2). There were also some important differences in racial/ethnic distribution, especially for district pair 7, in which the first district has a predominantly Hispanic population and the second district is more evenly divided among White, Black, and Hispanic students. Overall, the district demographic characteristics were as comparable as possible, given the nature of the study and its national focus.

## Coordinating the Annual Data Collection Activities

Our first activity in anticipation of the annual data collection was to communicate with the districts at the beginning of each school year. We sent a letter to each DFSCA coordinator and superintendent, reminding them about the study's purpose and upcoming activities and asking them for their cooperation for the current year's activities. The data collection team then prepared to obtain initial tracking information with assistance from the district DFSCA coordinator. From the initial tracking we obtained the list of schools in which study participants were enrolled and in early fall we contacted each of those principals to explain the study, secure



their understanding and cooperation, and make plans for the spring data collection visit. These plans involved a final tracking to verify the students' location (see next section for full details on tracking procedures), selecting a week for primary data collection, and discussing the procedures for conducting the student survey and the staff interviews.

Prior to the annual site visit to collect program and student data, the on-site data collectors gathered information on the number of study participants at each school and discussed with the principals the logistics for conducting the student survey (i.e., by classroom, by grade, by homeroom, or as a single group to be surveyed at one time). The on-site data collectors also gathered information on the staff we would interview and the observations of classrooms or activities that we would make. This pre-visit information served to tailor the site visit preparations and materials to allow for maximum use of the visit time while placing the least burden on the district staff. Student survey materials were tailored to the specific arrangements made *a priori* for each site; these included administration-specific student lists (i.e., grouped by classroom, grade, etc.); worksheets to note the survey outcome for each student (e.g., absent, refused, completed, etc.); surveys that were pre-labeled with the student identification numbers; and appropriate staff questionnaires.

## **Tracking Participating Students**

**Methods.** Following the initial year, on-site data collectors spent much of their efforts during the fall of each year attempting to locate the 10,972 fifth and sixth grade students who completed the survey in spring 1992. We followed these same students through the 1994-95 school year, when students were in the eighth and ninth grades. To accomplish this, we defined specific methods and materials that were implemented at each site.

During the baseline year we constructed a database of student locator information to enable us to trace students as they moved from one school to another within a district, and in and out of the district itself. Each student name was associated with a unique identification number that also contained the site identification number. Associated with each student identification number in the database were: (1) the student's complete name; (2) the last grade attended; (3) the last school attended; and (4) the identification number from the district records, if available from the district. At the end of each year, new information was added to the student files and the latest data were made available to the field data collectors to begin a new round of tracking.

Tracking procedures for a given cycle of data collection were initiated in the fall of the school year during which we were to conduct the surveys. To obtain current school and

classroom information we proceeded in either of two ways. For districts with computerized student records, we provided the district with a disk containing the names and/or the district identification numbers of all students who had completed the baseline survey; the districts searched their enrollment files and produced a student roster for the study participants with the new school and grade information. For all other districts, the district records office provided the field data collectors with student rosters for the appropriate grades (e.g., sixth and seventh grades in 1993, seventh and eighth grades in 1994, and eighth and ninth grades in 1995) that included all students in those grades, not just study participants. In both cases, the field data collectors transferred information from the rosters to project "tracking sheets" that could be entered into our database. Once the data regarding a student's current location were keyed into the database, a second tracking sheet was produced, showing the current information and sorting the names by tracking status so that students who were not located in the first round of tracking appeared first on the list. Several months prior to the start of survey administration, field staff made a second attempt to locate these students, often by checking individual school rosters where students would most likely attend, in addition to reviewing district records a second time. During each of the four years of student data collection, we were successful in obtaining location information on more than 98 percent of the baseline sample; that is, information on whether the student was attending school in the district (and if so, where) or had transferred out of the district.

**Student tracking results.** As can be expected in a longitudinal study, a percentage of students left the district each year and did not return during the course of the study. The scope of the study did not permit us to attempt to survey students if they moved to another district since they would be participating in a drug prevention program for which we could not collect program information. We did, however, attempt to administer a survey to students in subsequent years if they moved back to the original district. As can be seen in *Exhibit 1-4*, 80.8 percent of the sample was attending school in the original district during the last year of data collection (1995), compared with 86.2 percent in 1994, and 92.3 percent in 1993. Student transfer out of the district was the single greatest factor affecting our attrition rate and one that could not be foreseen or controlled within the scope of this study. Across districts, student mobility was greater in some communities than in others, most notably in districts 1, 2, and 18 — communities with a great deal of movement among their residents. The most stable student populations were, not surprisingly, observed at districts with small enrollments in rural or suburban districts (e.g., districts 5, 7, 9, and 11)

In addition to movement in and out of districts, in some sites we also encountered a great deal of mobility of students within the district. Typically, the majority of students stayed in a

Exhibit 1-4. Students Enrolled in District Schools: Number and Percent of Baseline

District Code	Year 1 (Baseline)	Year 2		Year 3		Year 4	
1	662	635	95.9	539	81.4	495	74.8
2	593	514	86.7	428	72.2	400	67.5
3	418	382	91.4	347	83.0	317	75.8
4	544	489	89.9	460	84.6	433	79.6
5	604	564	93.4	548	90.7	518	85.8
6	673	621	92.3	570	84.7	533	79.2
7	715	661	92.4	641	89.7	622	87.0
8	850	792	93.2	744	87.5	699	82.2
9	240	227	94.6	220	91.7	219	91.3
10	420	379	90.2	356	84.8	340	81.0
11	318	299	94.0	286	89.9	271	85.2
12	650	605	93.1	580	89.2	549	84.5
13	520	490	94.2	466	89.6	429	82.5
14	775	716	92.4	680	87.7	651	84.0
15	417	370	88.7	361	86.6	329	78.9
16	794	773	97.4	726	91.4	672	84.6
17	511	451	88.3	445	87.1	434	84.9
18	857	836	97.6	691	80.6	635	74.1
19	411	385	93.7	365	88.8	322	78.3
ALL	10,972	10,189	92.9	9,453	86.2	8,868	80.8

Interpretation: "Among the 662 students in district 1 who completed a survey during the baseline year (Year 1), 635 (95.9 percent) were still enrolled in the district in Year 2."

Source: Tracking data, 1992-95

core concentration of schools (as we hoped), but a smaller percentage moved to many other schools in the district. Since we followed students to whichever school they attended, in a number of schools we surveyed only a few students or even a single student. As *Exhibit 1-5* shows, the number of schools in which we conducted surveys increased from 78 during the first year to 253 in the final year. The largest increase from one year to the next was from school year 1992-93 (year 1) to school year 1993-94 (year 2), when most of the sixth graders in the study moved from elementary school to middle school. The next significant increase we observed was between the third and last years as the ninth grade students in the sample moved from middle school to high school. Not surprisingly, the districts with the greatest movement of students to other schools within the district were all urban sites and represented the study districts with the largest enrollment (districts 1, 4, 12, 15, 16, and 19). By contrast, the districts where the spread of students to different schools was minimal were for the most part rural sites with the smallest district enrollment and fewest schools.

Districts with a great deal of internal student mobility presented us with added challenges for tracking and data collection. Our on-site data collectors not only had to search through more enrollment records each year in order to locate the students at these sites, but they also had to go back and verify the location of students just prior to data collection because of the likelihood of

**Exhibit 1-5. Number of Schools Attended by Participating Students**

District Code	Number of Schools			
	Year 1	Year 2	Year 3	Year 4
1	3	35	16	17
2	4	1	2	2
3	2	7	5	7
4	5	30	21	34
5	6	5	5	9
6	5	6	10	10
7	8	3	3	4
8	5	6	4	3
9	1	2	1	2
10	1	2	3	3
11	5	1	3	3
12	4	17	17	28
13	3	6	5	7
14	5	6	7	9
15	4	21	9	14
16	4	41	46	52
17	2	6	11	11
18	7	12	9	9
19	4	12	19	29
All	78	219	196	253

Interpretation: "Study participants from district 1 were enrolled in three different schools during Year 1, 35 schools in Year 2, 16 schools in Year 3, and 17 schools in Year 4."

Source: Tracking data, 1992-95; N=10,972

additional changes in school attendance between the fall and the spring of the year.

Complications for data collection, due to the increase in the number of schools in the study, included: (1) increased staff time to prepare the data collection materials; (2) increased staff time to notify new principals and introduce the study; and (3) increased complexity in the logistics for scheduling and administering the survey.

## Data Collection Methods

In this section, we describe the types of data we collected from program staff and students and the methods we utilized for collecting these data. Although we refined and tailored the data collection efforts each year as we gained knowledge and experience in collecting the information and as the need for new information emerged, the core data collection effort remained the same from one year to the next. During the first two years of the study, one or two RTI staff visited each site and played a primary role in conducting staff interviews and leading the student survey administrations. As the on-site staff gained experience and became known to the district and school staff each year, they took on increasingly more of the data collection responsibilities. During the final two years of the study, RTI staff visited only the large sites or those with complex data collections.

**Program data.** Each year, with input from the prevention program coordinator and the principals of participating schools, we scheduled a week between January and May during which to conduct the majority of the data collection for that year; this we termed the “primary data collection week.” During this week we conducted the majority of the student surveys and we interviewed the prevention program coordinator about changes in the program components, funding, staffing, training, and other district-wide initiatives. We also requested updated district statistics such as annual absentee rates, graduation rates, and dropout rates. In addition, at each school where we located 25 or more students that year<sup>4</sup>, we interviewed or obtained a completed questionnaire from the principal, the drug prevention coordinator (if there was a coordinator), and 3-5 other staff directly involved in the delivery of the drug prevention program at the grade levels attended by the study participants that year. Following the baseline year, we made an effort to ease the response burden for the district coordinator and for any school principal that we interviewed in a previous year by asking for changes in the most recent information in our files. If there were no changes in a particular area, the respondent could skip to the next topic.

**Student outcome data collection.** During the primary data collection week we also scheduled student survey administrations at all or most of the key schools. The on-site data collectors then attempted to conduct all remaining surveys and make-up administrations over the next four weeks; however, in many cases, especially where absentee rates or mobility was high, it took several additional weeks to achieve more desirable completion rates.

Student surveys were administered to whole classrooms of fifth and sixth graders during the baseline year. In subsequent years, we consulted with the school principal to arrive at a plan for administering the survey to students in that school in a way that would cause the least disruption of normal school activities. Depending on how many study participants were enrolled at a school and how they happened to group in classrooms, the survey was given either by classroom<sup>5</sup>, or in groups assembled at a central location such as a library, cafeteria, or auditorium. In general, we found it preferable to survey smaller groups one at a time rather than a single large group; the latter situation made it more difficult to manage student behavior.

---

<sup>4</sup>We refer to these schools as “key” schools to distinguish them from all other schools in which fewer than 25 study participants were enrolled. At these non-key schools we only collected student data.

<sup>5</sup>At times, it was more convenient to administer the survey to an entire class even if only a portion of the students were in the study, rather than remove the study participants to a separate location. We devised a system of identification numbers that allowed us to keep track of the study and non-study respondents.

During the first two years, we translated the survey into Spanish and Haitian Creole and had staff fluent in those languages administer the survey to students who needed the translated version. In subsequent years, students had progressed in their language skills enough that they no longer needed the translated version.

**Administering the student survey.** During the initial year, the survey administrators read the entire survey aloud to students in order to keep a uniform pace for the class; we found this method to be particularly beneficial when answering questions from students since everyone was at the same place in the survey. During subsequent years we did not read the survey aloud (unless the school requested it) but still allowed students to ask questions by raising their hand. RTI and on-site staff monitoring the survey were trained on appropriate responses to questions about sensitive data and how to avoid inadvertently showing a response preference or a point of view when responding to a question. Surveys took approximately 60 minutes in the first year and 30-45 minutes in years two through four when students were permitted to go at their own pace.

**Methods for assuring students of confidentiality of data.** We developed a number of procedures and supporting materials to inform and assure students of the confidentiality of the data we collected through the survey. We believe these methods worked very well to persuade students of the security of the data, as evidenced by the highly consistent responses to drug use questions from year to year and the candid comments made voluntarily on the survey booklet about their drug use and other behaviors.

First, we discouraged the presence of any school staff member during the survey administration once the session was underway, to safeguard against breaches of confidentiality and to encourage candid responses from students. RTI staff remained at the front or back of the room except when answering questions. Second, we devised a specially designed, two-part identification label for the booklets; one half contained the student's name and was removed by the student as soon as the survey was in his or her possession, while the other half contained a unique identification number that was permanently affixed to the survey booklet. At the beginning of each session, we also reminded students that their responses would not be shared with anyone other than RTI research staff — especially not with anyone at the school or with their parents — and that all booklets would be shipped to RTI soon after they were completed. We provided students either with individual envelopes in which to place the completed survey or a seal to close the booklet.



Midway through the study, students began to ask more questions about the need for repeating a core set of questions each year, about the use of the data, and about our obvious ability to locate them each year using their identification numbers and names. To address these additional concerns, we added several items to our protocol and materials. First, we provided students with more information about these issues. We designed a brochure that explained, in cartoon fashion, the need to link their name with an identification number so that we could locate them each year, the way we kept their identity a secret, and the uses for the information we collected. We distributed the brochure at the beginning of each survey session. We also added a page to the survey that explained the manner in which we handled their data to ensure that no other persons outside of the RTI staff had access to their responses. Last, we converted the identification number into a bar-coded label that obscured the identity of the respondent even further and could also be scanned with an optical scanner during data receipt. These additions to our protocol were well received by the students and provided the needed tools for the staff who administered the surveys.

### **Annual Survey Response Rates**

The group of 10,972 students who completed the baseline survey in 1992 was the sample that we attempted to locate and survey each year. As we described previously, the main determinant of our ability to obtain a completed survey from each student every year was continued enrollment in a district school. So long as the students were attending school in the district that year, we attempted to administer a survey to them; however, if they moved to another district, we could not survey them that year. If, however, they returned to the district during a subsequent year, they were eligible once again for participation in the survey.

The survey response rates for individual years of the study are shown in *Exhibit 1-6*. Overall, 86.6 percent of the baseline students completed a survey in the second year, 81.1 percent in the third year, and 71.5 percent in the fourth year. As can be discerned from *Exhibit 1-7*, the primary determinant of the response rate each year was student transfer out of the district. This factor accounted for nonresponses from 7.1 percent of the baseline sample in Year 2, 13.9 percent in Year 3 and 19.2 percent in Year 4. An additional one to two percent of the students who were enrolled in the district at the final tracking each year, moved just prior to the start of data collection and could not be located elsewhere in the district. Also, each year around one percent of the baseline respondents could not be found, after exhausting all tracking efforts. Absentees made up just one to two percent of the sample each year, demonstrating the effort that the on-site data collectors put forth to reduce attrition due to absence. Other reasons for nonresponses from students included refusals on the part of either the student or the parent, both

**Exhibit 1-6. Student Survey Response Rates: Number and Percent of Baseline**

District Code	Year 1 (Baseline)	Year 2		Year 3		Year 4	
1	662	574	86.7	523	79.0	476	71.9
2	593	466	78.6	417	70.3	377	63.6
3	418	372	89.0	339	81.1	300	71.8
4	544	438	80.5	440	80.9	407	74.8
5	604	547	90.6	534	88.4	500	82.8
6	673	550	81.7	494	73.4	405	60.2
7	715	652	91.2	626	87.6	575	80.4
8	850	769	90.5	728	85.6	667	78.5
9	240	227	94.6	214	89.2	212	88.3
10	420	369	87.9	349	83.1	328	78.1
11	318	297	93.4	278	87.4	242	76.1
12	650	586	90.2	567	87.2	521	80.2
13	520	482	92.7	460	88.5	412	79.2
14	775	666	85.9	643	83.0	575	74.2
15	417	341	81.8	297	71.2	266	63.8
16	794	675	85.0	619	78.0	494	62.2
17	511	439	85.9	411	80.4	282	55.2
18	857	677	79.0	629	73.4	530	61.8
19	411	375	91.2	330	80.3	273	66.4
ALL	10,972	9,502	86.6	8,898	81.1	7,842	71.5

Interpretation: "Among the 662 baseline participants from district #1, 574 (86.7 percent) participated in the survey again in Year 2."

Source: Tracking data, 1992-95; N=10,972

**Exhibit 1-7. Reasons for Student Non-Response: Percent of Baseline Students**

Survey Year	Reason for Non-Response							Total Non-Respondents
	Not Enrolled in District	Changed Location	Location Unknown	Absent	Student Refused	Parent Refused	Unable to Complete	
1993 (Year 2)	7.1	2.5	0.9	2.0	0.4	0.1	0.4	13.4
1994 (Year 3)	13.9	1.0	1.4	1.4	0.5	0.1	0.6	18.9
1995 (Year 4)	19.2	2.3	1.3	2.4	1.1	0.1	2.2	28.5

Interpretation: "Among baseline (Year 1) participants, 7.1 percent did not complete a survey during 1993 (Year 2) because they were not enrolled in the district."

Source: Tracking data, 1992-95; N=10,972

of which accounted for an insignificant number of nonrespondents. Finally, each year field staff encountered a small number (one to two percent) of students who were unavailable for participation in the survey at the time of the survey administration or the make-up session for other reasons, including a scheduling conflict with another activity at the school, an illness, or a discipline problem. These scheduling conflicts increased as students reached middle school and high school. On several occasions we also encountered scheduling conflicts that affected whole



groups of students, and those other activities were given precedence over the student survey. While we often were able to re-schedule schools for a different week when this occurred, at least in a few cases (e.g., district 17, year 4) it was too late in the school year to postpone the survey administration date and we were unable to survey an entire group at one school.

**Variability across districts.** Across districts, the response rate varied due to several factors. The main factor, of course, was mobility of the community at large, which was reflected in the mobility of the students in the study. Such was the case in districts 1, 2, 3, and 18. In some medium-to-large urban districts such as districts 4, 15, 16, and 18, on-site staff encountered more absentees and student refusals than in the smaller, rural districts or the predominantly suburban districts. In these urban districts we also had greater difficulties with student apathy and tampering with identification labels, both of which led to additional cases of incomplete or unusable surveys (both counted as “refusals”). In several cases, district administrators requested written parent permission before students could be allowed to take the survey; however, this requirement did not result in a significantly greater rate of refusals for those districts compared with others.

**Response rates over four years.** The most important response rate for this longitudinal study is that associated with students who completed a survey during all four years of the study. As shown in *Exhibit 1-8*, we achieved a 66 percent longitudinal response rate across all districts. We also show the percentage of students who completed a survey for fewer than the four years. While 8.8 percent completed only the baseline survey, 7.2 percent completed a survey during the first two years, and 11.4 percent completed all but the last survey. As can also be seen, it was possible for a student to be absent one year from the survey for any of the reasons mentioned

**Exhibit 1-8. Student Participation in Multiple Years**

Years of Participation				Number	Percent of Total Sample
1	2	3	4		
x				960	8.8
x	x			793	7.2
x		x		126	1.1
x			x	83	0.8
x	x	x		1,250	11.4
x	x		x	238	2.2
x		x	x	301	2.7
x	x	x	x	7,221	65.8
Total				10,972	100

Interpretation: "Nine-hundred and sixty students (8.8 percent of the sample) participated in the study during Year 1 only."

Source: Tracking data, 1992-95; N=10,972

before (transfer, absence, refusal, etc.), and complete the survey in a subsequent year. The longitudinal response rate for individual districts varied from a low of 50 percent (for district 6) to a high of 83 percent (district 9), as shown in *Exhibit 1-9*.

### Comparability of Retained Sample vs. Baseline Sample

An important consideration for any field study, and particularly longitudinal field studies, is the loss of study participants, or attrition. Left unchecked, attrition can result in studies in which the retained sample is not representative of the population of participants receiving the treatments, in this case the group of students recruited in year 1 who participated in the drug prevention programs of the 19 school districts under study. While the retention rate over the four years of this study is considerably better than the rate expected for longitudinal studies,<sup>6</sup> it is important to establish the comparability at baseline of the retained sample and original sample on

**Exhibit 1-9. Longitudinal Survey Response Rates for Districts: Number and Percent of Baseline Students Completing a Survey During All Four Years of the Study**

District	Number	Percent
1	452	68
2	343	58
3	287	69
4	360	66
5	482	80
6	338	50
7	546	76
8	633	75
9	200	83
10	307	73
11	238	75
12	502	77
13	403	78
14	520	67
15	217	52
16	418	53
17	259	51
18	465	54
19	251	61
ALL	7,221	66

Interpretation: "Four-hundred and fifty-two students from district #1 (68 percent of the baseline sample) completed a survey during all four years of the study."

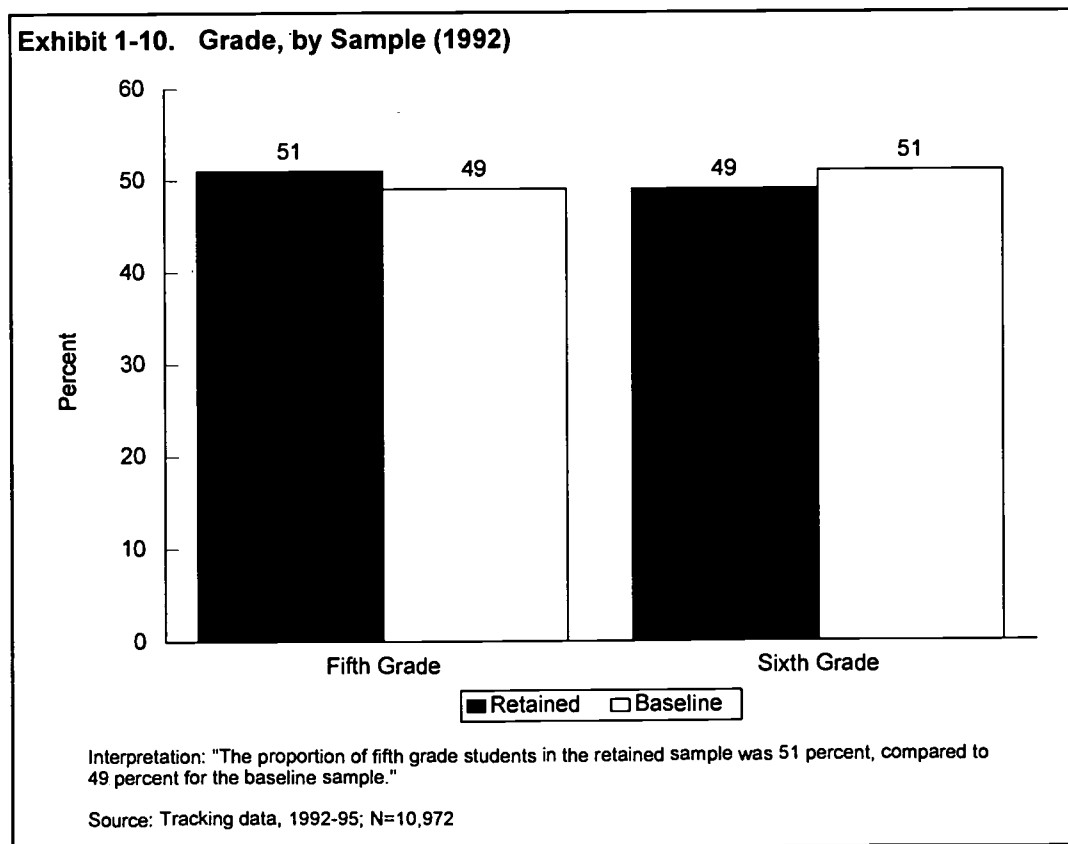
Source: Tracking data, 1992-95; N=10,972

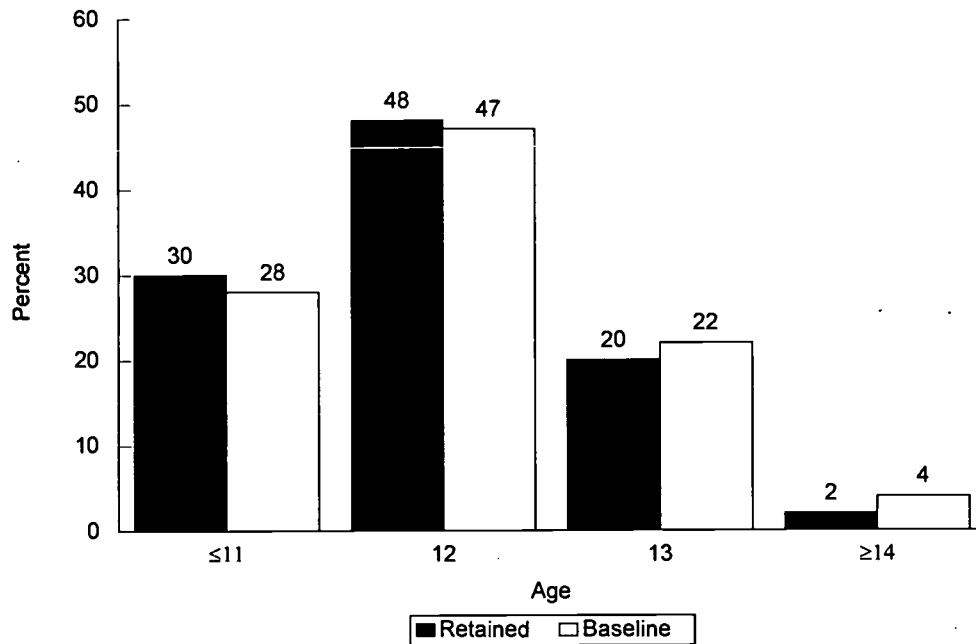
<sup>6</sup>A meta-analysis of 85 longitudinally-followed cohorts found the rate of retention at 3-year follow-ups to average 67.5 percent. The retention rate for this study was 77 percent at the end of the third year. This study's four-year rate was 66 percent; however, there are no comparable data available from the meta-analysis to contrast with this result. Hansen, W.B., Tobler N.S., & Graham, J.W. (1990). Attrition in substance abuse prevention research — a meta-analysis of 85 longitudinally followed cohorts. *Evaluation Research*, 14, 677-685.

a number of demographic characteristics and drug use variables. If the two groups were considerably different on these variables, we would be limited to describing the impact of the programs on a narrowly described population of students, as exemplified by the retained sample. To assess the comparability of the original and retained samples, we examined them across and within districts, as described below.

**Comparability of samples across districts.** We first examined the differences between the retained sample (those who completed all four years) and baseline sample (those who completed a survey in year 1) on a number of demographic characteristics. As can be seen in *Exhibits 1-10 through 1-13*, the two groups were very similar in terms of the relative proportions in each of the two cohorts (original grade 5 and original grade 6 students), and the age, gender, and race/ethnicity distributions. Overall, we found a maximum of only one to two percentage point differences in the distributions of these variables for the two groups. This difference is not significant and indicates a retained sample that is highly comparable to the baseline sample on these background characteristics.

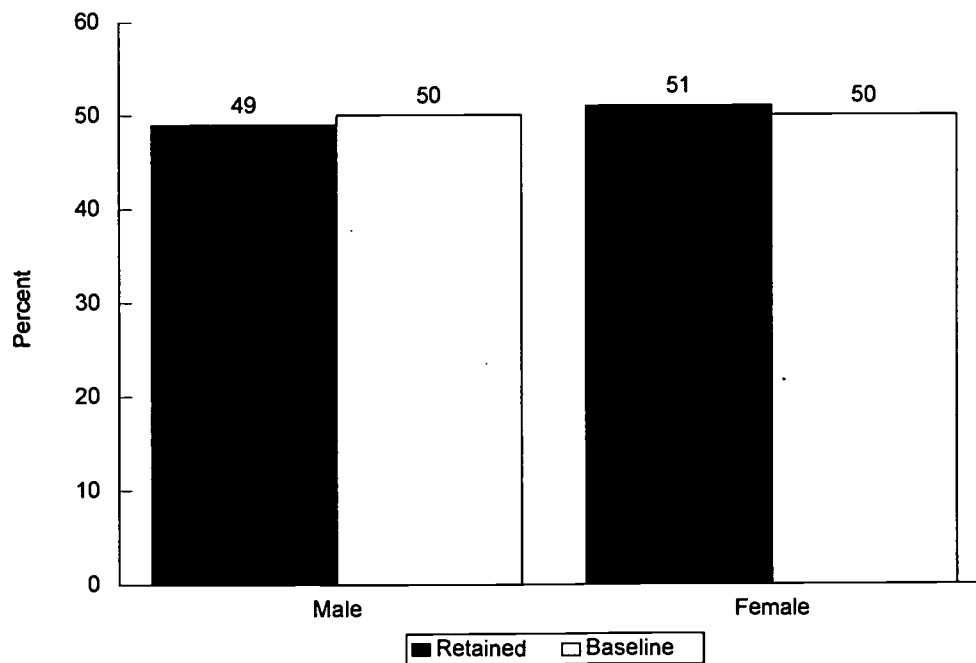
Next, we examined the drug and alcohol use levels reported in year 1 to assess what differences, if any, we could detect between the two groups at this early stage in the study. We examined the lifetime use (use of the drug ever), the use of the drug in the past 30 days and



**Exhibit 1-11. Age Distribution, by Sample (1992)**

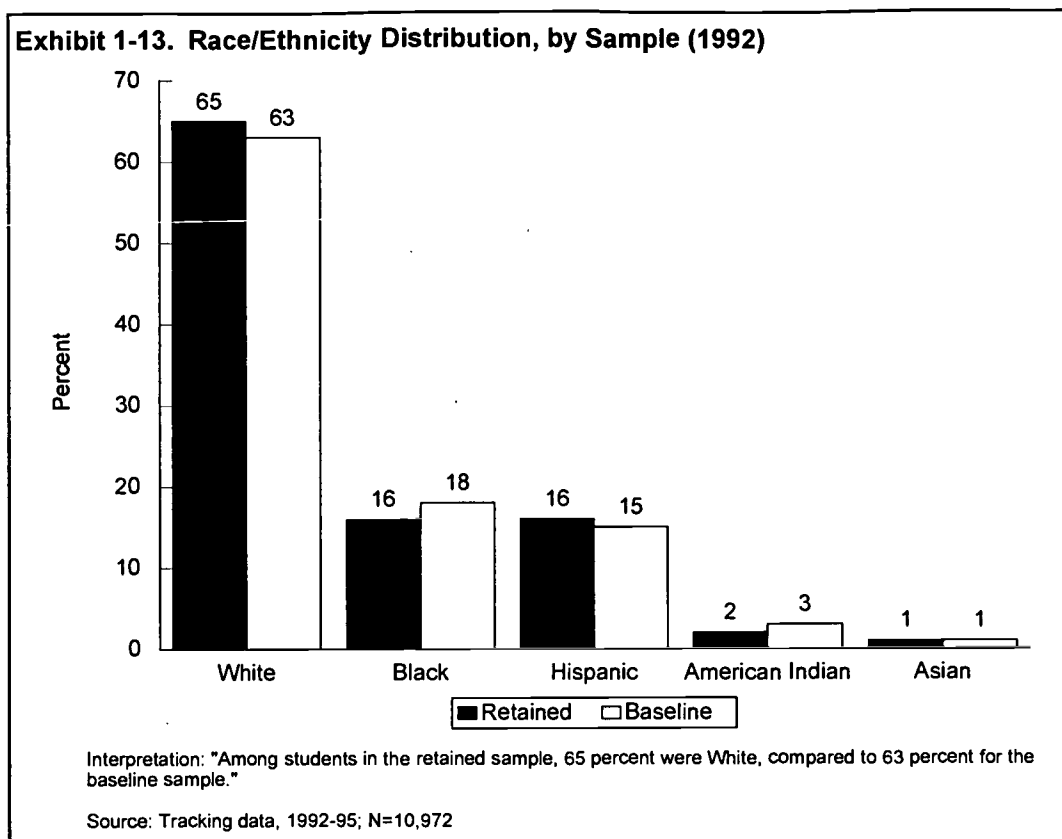
Interpretation: "Among students in the retained sample, 30 percent were 11 years of age or younger during the initial year of the study, compared to 28 percent for the baseline sample."

Source: Tracking data, 1992-95; N=10,972

**Exhibit 1-12. Gender Distribution, by Sample (1992)**

Interpretation: "Among students in the retained sample, 49 percent were male, compared to 50 percent for the baseline sample."

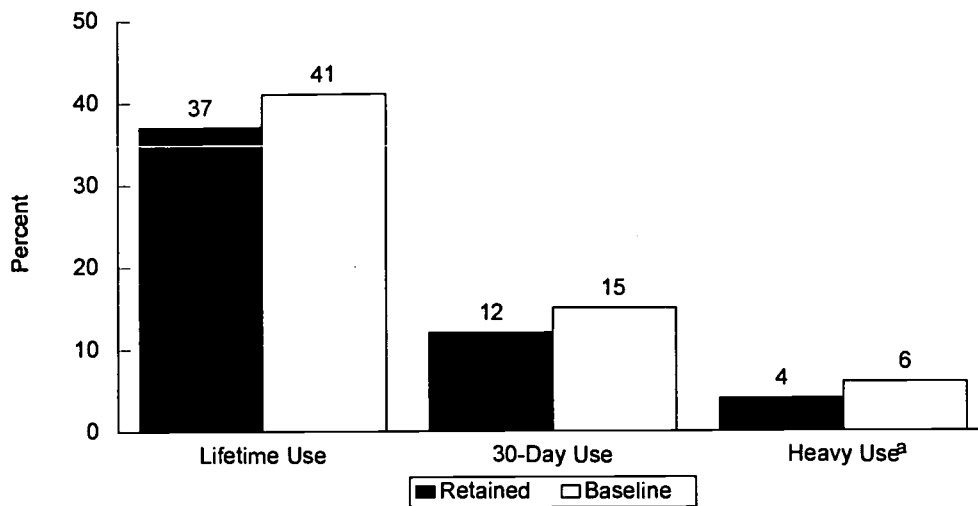
Source: Tracking data, 1992-95; N=10,972



the use of the drug for more than 10 times in the past 30 days ("heavy use"). In the case of alcohol, we also defined "heavy use" as being drunk at least once in the past 30 days. These results are presented in *Exhibits 1-14* through *1-18* for alcohol, cigarette, smokeless tobacco, marijuana, and inhalant use, respectively. Overall, we found differences of only one to four percentage points in the use of each of the drugs in the categories just described. This small difference favored the retained sample in each case, indicating a small but nonsignificant lower use of the drugs in the first year.

Last, we examined the attitudes and self-esteem of students as measured in the first year of the study. As shown in *Exhibit 1-19*, the proportion of students who considered each drug as "bad" to use were almost identical in the retained and baseline samples. *Exhibit 1-20* indicates that similar results were obtained for the indicators of self-esteem. We thus concluded that across all districts, the retained sample of students was an unbiased sample relative to the baseline year.

**Comparability of district samples.** Because the results for this study will be examined on a district-by-district basis as well as across districts, we also assessed the potential bias of the retained sample for individual districts. *Exhibit 1-21* shows that the relative proportions of the

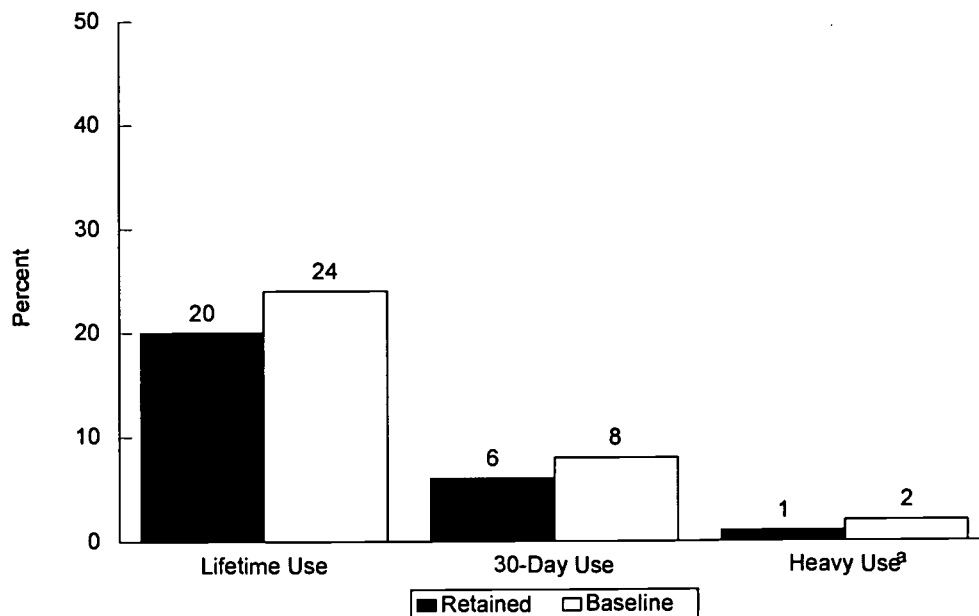
**Exhibit 1-14. Alcohol Use, by Sample (1992)**

Interpretation: "Among students in the retained sample, 37 percent reported in Year 1 that they had ever used alcohol (more than a sip), compared with 41 percent for the baseline sample."

<sup>a</sup>Heavy use is defined as use of alcohol more than ten times in the last 30 days or being drunk at least once in the past 30 days.

Note: Students were asked to exclude from their responses any occasional sips of alcohol their parents allow them to have, wine taken during religious ceremonies, or medications prescribed by their own doctor. Alcohol was defined as beer, wine, wine coolers, or liquor.

Source: Student Survey 1992 (items E1-E25); N=10,972

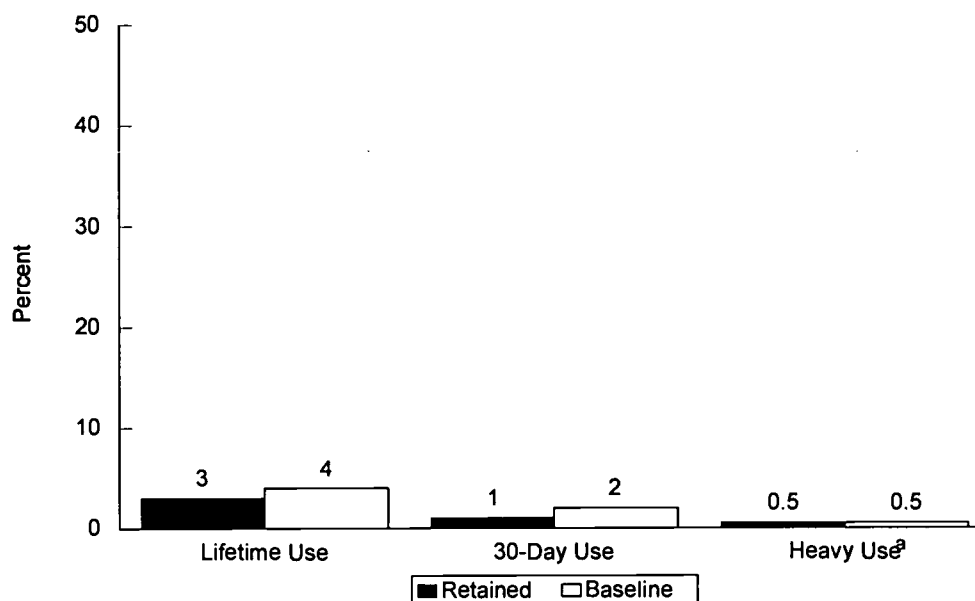
**Exhibit 1-15. Cigarette Use, by Sample (1992)**

Interpretation: "Among students in the retained sample, 20 percent reported in Year 1 that they had ever smoked a cigarette, compared with 24 percent for the baseline sample."

<sup>a</sup>Heavy use is defined as use of cigarettes more than ten times in the last 30 days.

Source: Student Survey 1992 (items E1-E25); N=10,972

**Exhibit 1-16. Marijuana Use, by Sample (1992)**

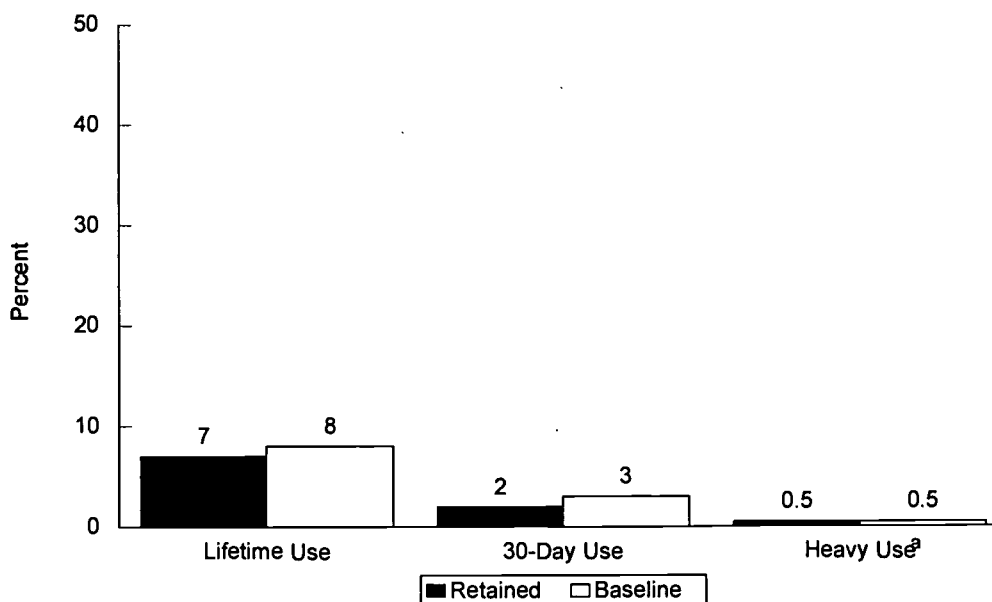


Interpretation: "Among students in the retained sample, 3 percent reported in Year 1 that they had ever smoked marijuana, compared with 4 percent for the baseline sample."

<sup>a</sup>Heavy use is defined as use of marijuana more than ten times in the last 30 days.

Source: Student Survey 1992 (items E1-E25); N=10,972

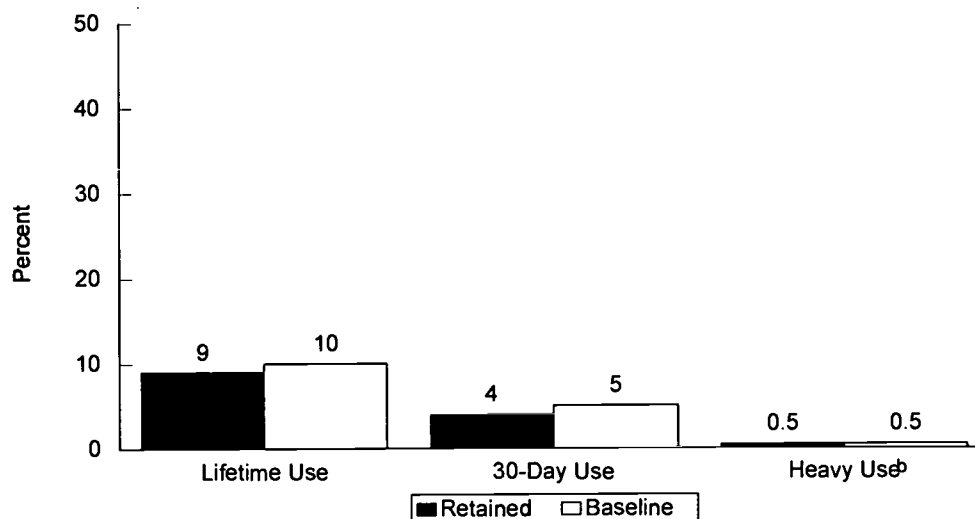
**Exhibit 1-17. Smokeless Tobacco Use, by Sample (1992)**



Interpretation: "Among students in the retained sample, 7 percent reported in Year 1 that they had ever used smokeless tobacco, compared with 8 percent for the baseline sample."

<sup>a</sup>Heavy use is defined as use of smokeless tobacco more than ten times in the last 30 days.

Source: Student Survey 1992 (items E1-E25); N=10,972

**Exhibit 1-18. Inhalant<sup>a</sup> Use, by Sample (1992)**

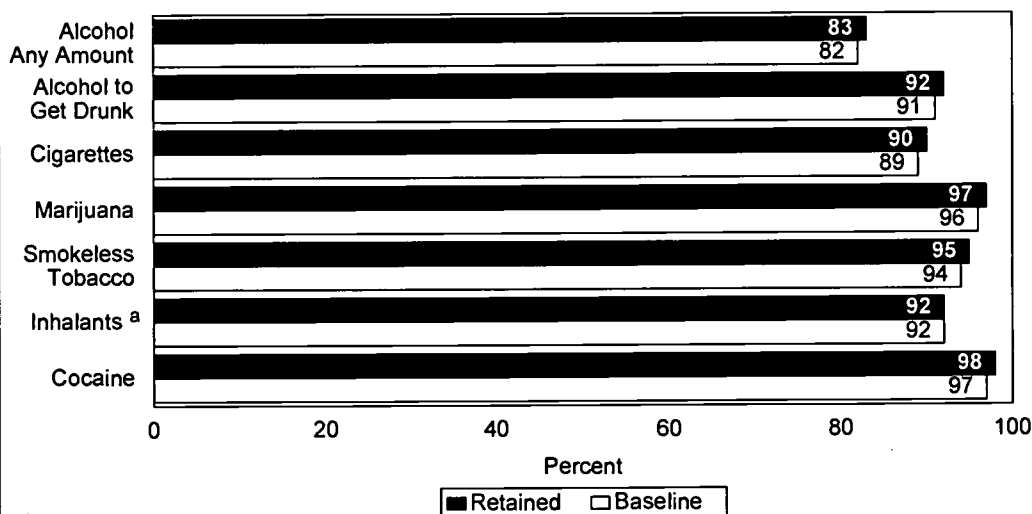
Interpretation: "Among students in the retained sample, 9 percent reported in Year 1 that they had ever used inhalants to get high, compared with 10 percent for the baseline sample."

<sup>a</sup>Inhalant use was defined as "sniffing glue or gas (or other things to get high)."

<sup>b</sup>Heavy use is defined as use of inhalants more than ten times in the last 30 days.

Note: Students were asked to exclude from their responses any medications prescribed by their own doctor.

Source: Student Survey 1992 (items E1-E25); N=10,972

**Exhibit 1-19. Students Who View the Drug as "Bad" to Use, by Sample (1992)**

Interpretation: "Among students in the retained sample, 83 percent believed in Year 1 that alcohol (more than a sip) was 'bad' to use, compared with 82 percent for the baseline sample."

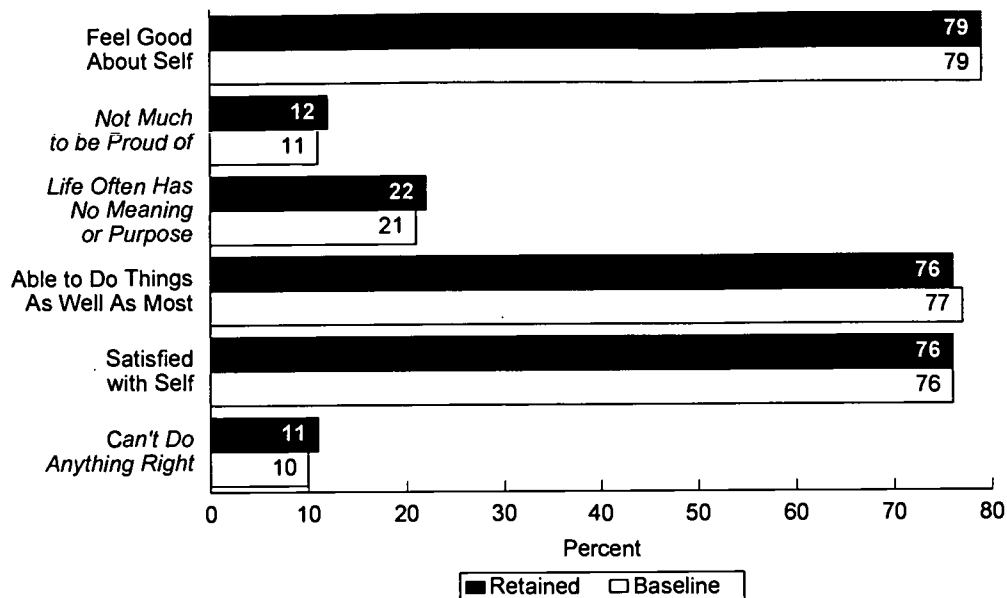
<sup>a</sup>Inhalant use was defined as "sniffing glue or gas (or other things to get high)."

Note: Students were asked to exclude from their responses any occasional sips of alcohol their parents allow them to have, wine taken during religious ceremonies, or medications prescribed by their own doctor. Alcohol was defined as beer, wine, wine coolers, or liquor. Response categories were: "a bad thing," "neither good nor bad," and "a good thing."

Source: Student Survey 1992 (items C1-C7); N=10,972



**Exhibit 1-20. Percent of Students Who Agreed with Positive or Negative Statements About Themselves, by Sample**

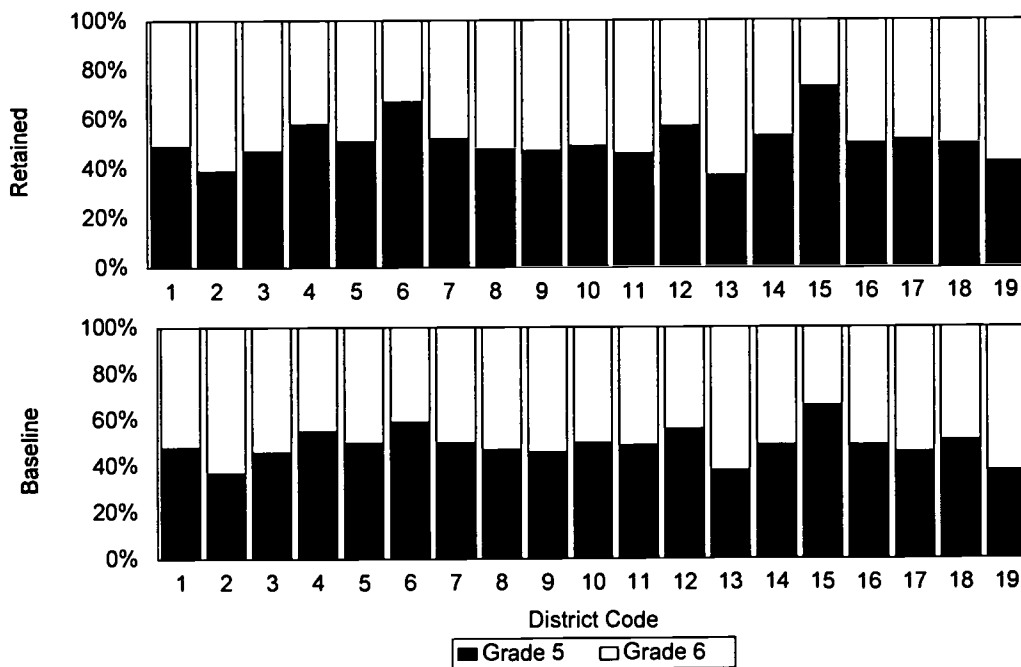


Interpretation: "Among students in the retained sample, 79 percent agreed in Year 1 that they 'felt good about themselves'; the same was true for the baseline sample."

Note: Response categories were: "agree," "neither agree nor disagree," and "disagree." Items in *italics* represent negative (undesirable) feelings.

Source: Student Survey 1992 (items G1-G6); N=10,972

**Exhibit 1-21. Grade, by Sample**



Interpretation: "The proportion of district #1 fifth graders in the retained sample was approximately 50 percent, compared to 47 percent in the baseline sample."

Source: Tracking data, 1992-95; N=10,972

two cohorts, for both retained and baseline samples, were nearly identical in each case. The same can be said for the relative proportions of males and females (*Exhibit 1-22*), and the race/ethnicity distributions (*Exhibit 1-23*) for each district.

We also examined the incidence (lifetime use ) levels of alcohol, cigarette, smokeless tobacco, and inhalant use in year 1, as well as the prevalence (30-day use) of alcohol and cigarettes for both the retained and the baseline samples. Use rates for other drugs were so low in year 1 that they precluded making meaningful comparisons. The comparability of the retained and baseline samples for lifetime and current (30-day) use of alcohol is illustrated in *Exhibit 1-24*. As can be seen, the retained samples exhibited slightly lower rates of alcohol involvement, most notably in districts 1, 6, 8, and 10, which showed differences of six to seven points though only in the case of districts 1 and 8 was this difference statistically significant. Differences for 30-day use or prevalence were smaller but in the same direction; districts 2, 3, and 6 showed the largest difference (four to five points) between retained and baseline samples for alcohol prevalence although only that of district 6 was statistically significant.

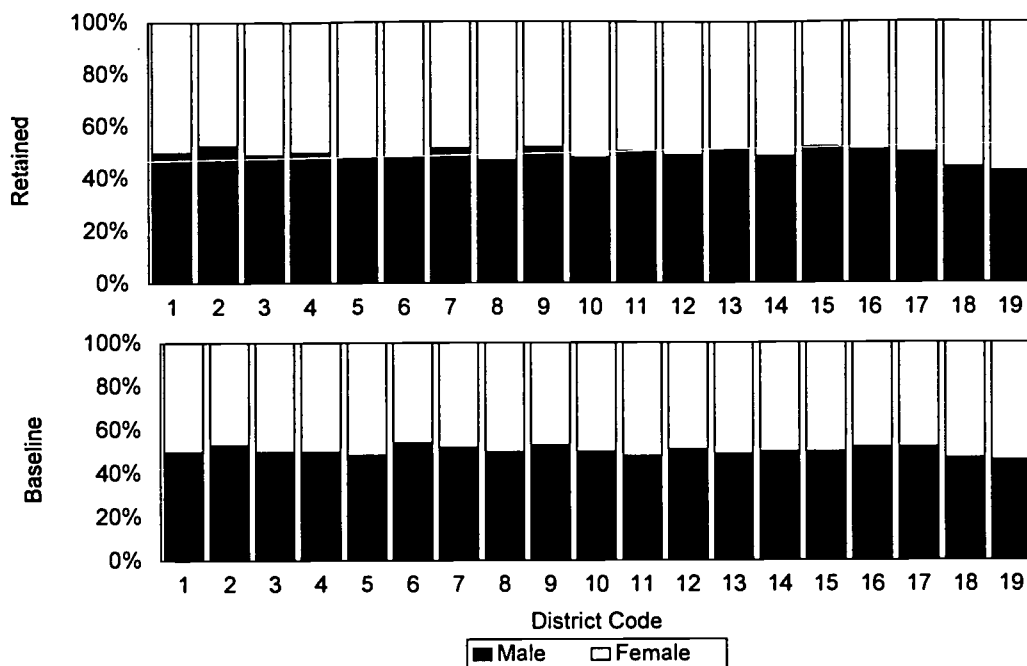
Similar results were observed for cigarette use, as illustrated in *Exhibit 1-25*. Districts 1, 6, and 10 showed significant differences in lifetime use, favoring the retained sample by six to eight points, while district 10 showed a lower prevalence of cigarette use for the retained sample (a difference of 6 points). Incidence rates for smokeless tobacco use (*Exhibit 1-26*) were also slightly lower for the retained group, particularly for districts 2, 4, 14, and 18 although only district 18's difference was statistically significant. Finally, a few districts showed very small but insignificant differences in lifetime use of inhalants across the retained and baseline samples, in favor of the retained sample (*Exhibit 1-27*).

In conclusion, the results show that the retained sample, which is the basis for our longitudinal analyses of study outcomes presented in the Final Report, is highly comparable with the baseline sample on demographic characteristics, baseline drug use, attitudes towards drug use, and measures of self-esteem. The few small differences in drug use found for several of the districts are not large enough or widespread enough to be of consequence for interpreting the results of this study.

## **Summary of Data Analysis Techniques**

The annual data collection of program implementation and student survey data yielded several types of data. First, we compiled the implementation and program delivery data into a case study file for each district, organized to facilitate data reduction and summary. These data

**Exhibit 1-22. Gender, by Sample**



Interpretation: "Among district #1 students in the retained sample, approximately 49 percent were male, compared to 48 percent in the baseline sample."

Source: Tracking data, 1992-95; N=10,972

**Exhibit 1-23. Race/ethnicity Distribution by Sample (1992)**

District	Retained (%)					Baseline (%)				
	White	Black	Hispanic	Asian	American Indian	White	Black	Hispanic	Asian	American Indian
1	64	3	24	2	6	65	4	23	2	6
2	68	2	26	1	3	71	2	24	1	3
3	79	3	12	2	3	76	6	13	2	3
4	79	2	14	3	2	80	3	13	2	2
5	82	5	7	5	1	81	5	9	5	1
6	55	34	7	1	2	55	36	6	1	3
7	84	1	8	1	5	80	1	11	1	8
8	79	1	18	<1	2	75	1	21	<1	3
9	96	0	2	0	0	97	0	2	1	<1
10	88	5	3	0	5	88	5	2	0	5
11	92	0	2	<1	4	94	0	2	<1	4
12	57	40	1	1	1	60	38	1	<1	1
13	93	1	2	3	1	91	2	2	3	2
14	33	2	61	<1	3	37	3	57	1	3
15	22	59	15	1	1	25	54	18	1	1
16	39	43	8	2	4	41	44	7	3	5
17	65	29	1	2	3	68	26	1	2	3
18	23	52	21	1	1	29	47	22	1	1
19	40	51	4	1	2	41	51	5	1	2

Interpretation: "Among district #1 students in the retained sample, 64 percent were White, compared to 65 percent in the baseline sample."

Source: Tracking data, 1992-95; N=10,972

Exhibit 1-24. Alcohol Use, by Sample (1992)

District	Lifetime Use (%)		30-Day Use (%)	
	Retained	Baseline	Retained	Baseline
1	25	32 <sup>a</sup>	9	12
2	38	43	13	17
3	31	36	7	11
4	45	49	15	16
5	23	25	5	6
6	50	55	15	20 <sup>a</sup>
7	27	30	8	10
8	27	33 <sup>a</sup>	9	12
9	43	44	14	12
10	39	46	11	13
11	30	34	9	9
12	45	48	16	18
13	36	36	8	9
14	49	53	19	20
15	42	42	12	12
16	44	47	14	15
17	41	43	16	17
18	39	44	18	21
19	45	47	14	15

Interpretation: "Among district #1 students in the retained sample, 25 percent reported in Year 1 that they had ever used alcohol (more than a sip), compared with 32 percent for the baseline sample. This difference is statistically significant."

<sup>a</sup>Statistically significant difference at  $p < .05$ . All others were non-significant.

Note: Students were asked to exclude from their responses any occasional sips of alcohol their parents allow them to have, wine taken during religious ceremonies, or medications prescribed by their own doctor. Alcohol was defined as beer, wine, wine coolers, or liquor.

Source: Student Survey 1992 (items E1-E25); N=10,972

Exhibit 1-25. Cigarette Use, by Sample (1992)

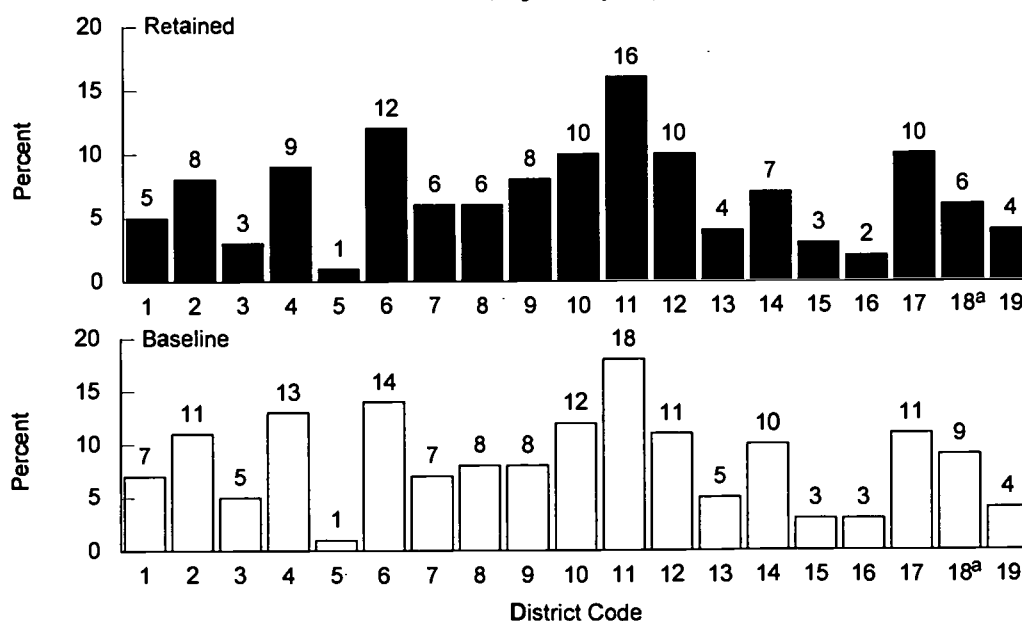
District	Lifetime (%)		30-Day (%)	
	Retained	Baseline	Retained	Baseline
1	17	23 <sup>a</sup>	7	8
2	31	35	9	12
3	15	19	3	5
4	21	25	7	8
5	7	8	2	2
6	24	32 <sup>a</sup>	9	12
7	16	19	7	9
8	18	22	4	6
9	20	22	6	7
10	30	37 <sup>a</sup>	8	14 <sup>a</sup>
11	23	28	9	11
12	22	25	7	8
13	14	16	3	4
14	26	29	9	11
15	19	18	3	5
16	17	19	5	6
17	23	28	9	11
18	23	26	9	11
19	18	20	5	5

Interpretation: "Among district #1 students in the retained sample, 17 percent reported in Year 1 that they had ever smoked a cigarette, compared with 23 percent for the baseline sample. This difference is statistically significant."

<sup>a</sup>Statistically significant difference at  $p < .05$ . All others were non-significant.

Source: Student Survey 1992 (items E1-E25); N=10,972

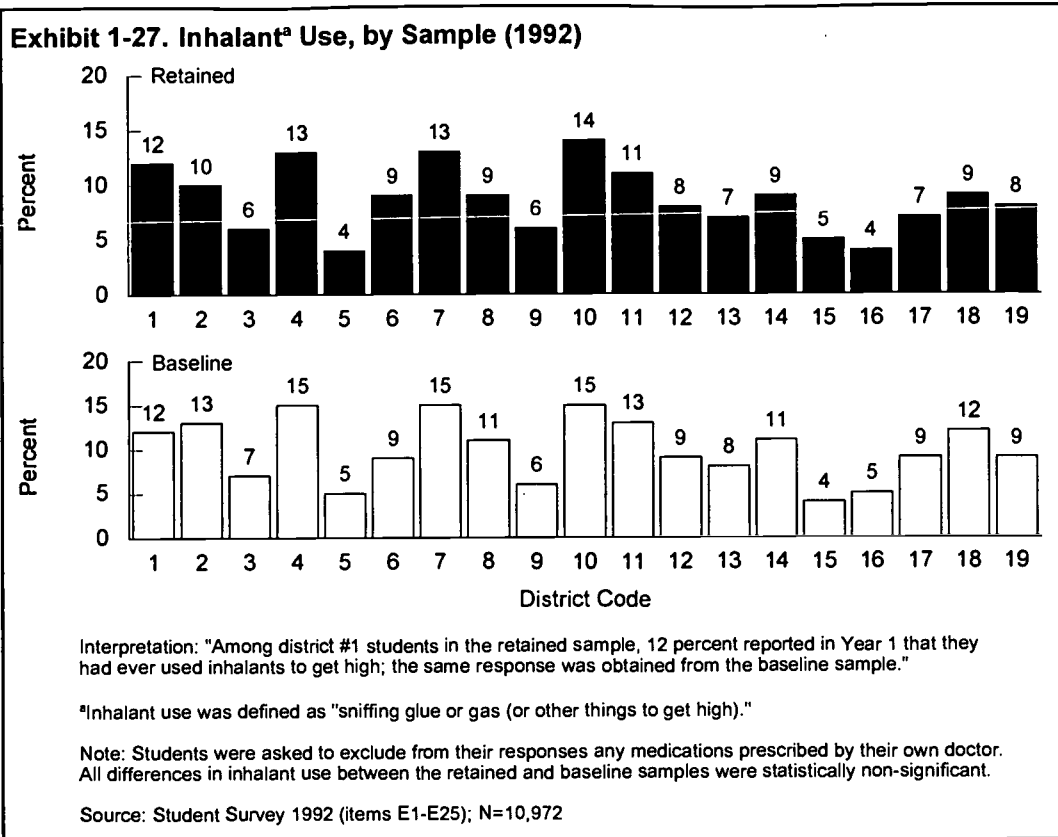
Exhibit 1-26. Smokeless Tobacco Use, by Sample (1992)



Interpretation: "Among district #1 students in the retained sample, 5 percent reported in Year 1 that they had ever used smokeless tobacco, compared with 7 percent for the baseline sample. This difference is not statistically significant."

<sup>a</sup>Statistically significant difference at  $p < .05$ . All others were non-significant.

Source: Student Survey 1992 (items E1-E25); N=10,972



were used in the Final Report to compare and contrast programs, summarize approaches to drug prevention, and illustrate key points regarding program delivery, quality of services, and other relevant topics.

Second, we compiled a large student-level database comprising the annual surveys of students. The database included demographic data (e.g., current grade, current school, gender, race/ethnicity, date of birth) as well as annual responses to questions on drug use, attitudes, beliefs, and feelings toward drugs. In addition, during the last two years of the study, the survey asked students about their participation in particular prevention program components and activities offered in their district or school. The structure of the databases permitted linking student data to school and district data as well as linking individual students' data from one year to the next to observe trends in behaviors and attitudes.

We defined and employed a number of composite variables including: (1) measures of severity and frequency of drug use (e.g., current heavy use); (2) scale scores for groups of attitudinal or behavioral measures (e.g., scale scores for self-esteem); (3) demographic and economic indexes (e.g., parental education); (4) aspects of program "comprehensiveness"; and (5) measures of the level of student participation in various types of program activities.

The student sample was drawn as described earlier from a group of purposively-selected school districts and not as a nationally representative sample designed to yield population estimates. Data were therefore treated in a straightforward manner, without weighting or adjusting for nonresponse bias. Our methods for analysis of the student survey data included descriptive statistics, such as measures of central tendency and dispersion, and computation of counts and proportions. Tables and figures in both the Final Report and this Technical Report display data by districts, program type (comprehensive or comparison), student cohort (fifth or sixth grade), or year of the study (Year 1, Year 2, Year 3, Year 4). In addition to descriptive statistics we employed relational or correlational statistics to examine the relationships between particular student characteristics and student outcomes as well as between program exposure to various components and student outcomes.

To examine the more complex interrelationships among program characteristics, program exposure to these components, and student outcomes, we used analysis of variance and regression analysis techniques. Recognizing that the study design did not include a true “baseline” for programs due to the ongoing nature of prevention programs and that, even after matching pairs of districts on important demographic variables there would still be a great deal of baseline non-equivalence between comprehensive and comparison districts, we further employed covariates in each regression model to attempt to equalize the two groups. Where appropriate, we adjusted for the effects of differences in district demographics, school environment for reported levels of violence, initial (Year 1) drug use experience for individual students, and student characteristics. Each variable in these analyses was measured at the student level.

We conducted analyses based either on the pooled data across all 19 districts or on data for individual school districts, as appropriate to address different research questions. To study the four-year trends for student-level behaviors such as drug use and attitudes and beliefs about drug use, we used the pooled data for the retained sample (the sample of 7,221 from whom we obtained a completed survey during all four years of the study). This afforded a close examination of the reported behaviors of a large group of students from diverse communities, over four years. A second set of analyses focused on home, school, and community risk indicators, such as violence, and their relationship to student drug use and attitudes. These analyses were also based on the aggregate of the data across the 19 school districts. A third type of analysis examined the characteristics of school prevention programs and their relationship to the reported outcomes for students. While the original design of the study focused on contrasting comprehensive and comparison districts, during the course of the study we discovered complications regarding this design. We found that: (1) programs would be better described as

falling along the continuum of “comprehensiveness”; and (2) the prevention programs varied so much within districts that the classification of programs at the *district* level as comprehensive or comparison was not meaningful. Subsequent analyses, then, focused on dimensions of “comprehensiveness.” For these analyses we used the pooled data across all 19 districts in order to understand the relationship between program “comprehensiveness” (and other district characteristics), and student outcomes, on a broader level than at the individual district level. Finally, we conducted analyses at the individual district level to highlight results for particular prevention programs with specific demographic and programmatic characteristics.

Interpretation of findings for the Final Report was complemented by qualitative analyses of data obtained from students, staff, and parents, through the annual site visits. We also included examples of personal comments provided by students each year that serve to illustrate the findings.

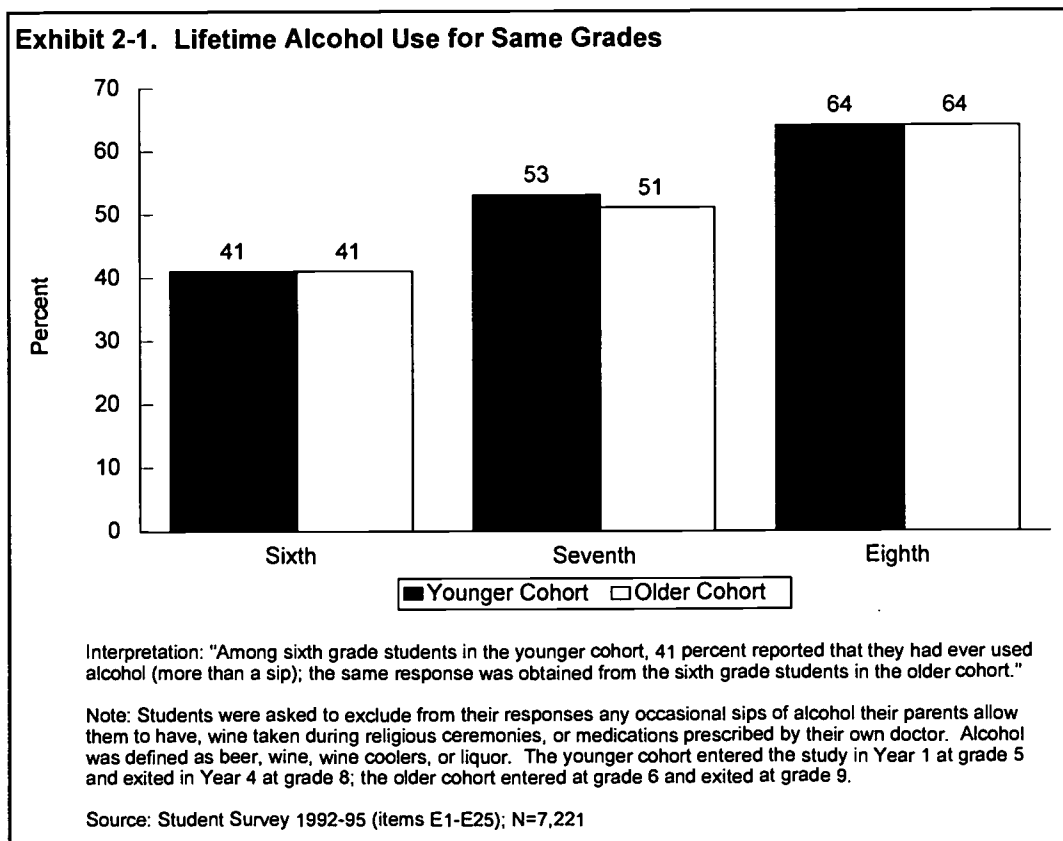


## Chapter 2. Same-Grade Comparisons

In this section we provide results of comparisons between students in the same grade, for drug use, attitudes, and perceptions of drug use; that is, we compare the two cohorts at the points in time when they were in the same grade (e.g., the older cohort's sixth grade responses in 1992 compared with the younger cohort's sixth grade responses in 1993). Appropriate comparisons can be made for these two groups at the sixth, seventh, and eighth grade levels. These comparisons afford a unique look into the potential age-related tendencies for the reported drug use behaviors and attitudes. They also serve to establish validity of the data; that is, to show whether cohorts of students at the same grade level gave similar responses.

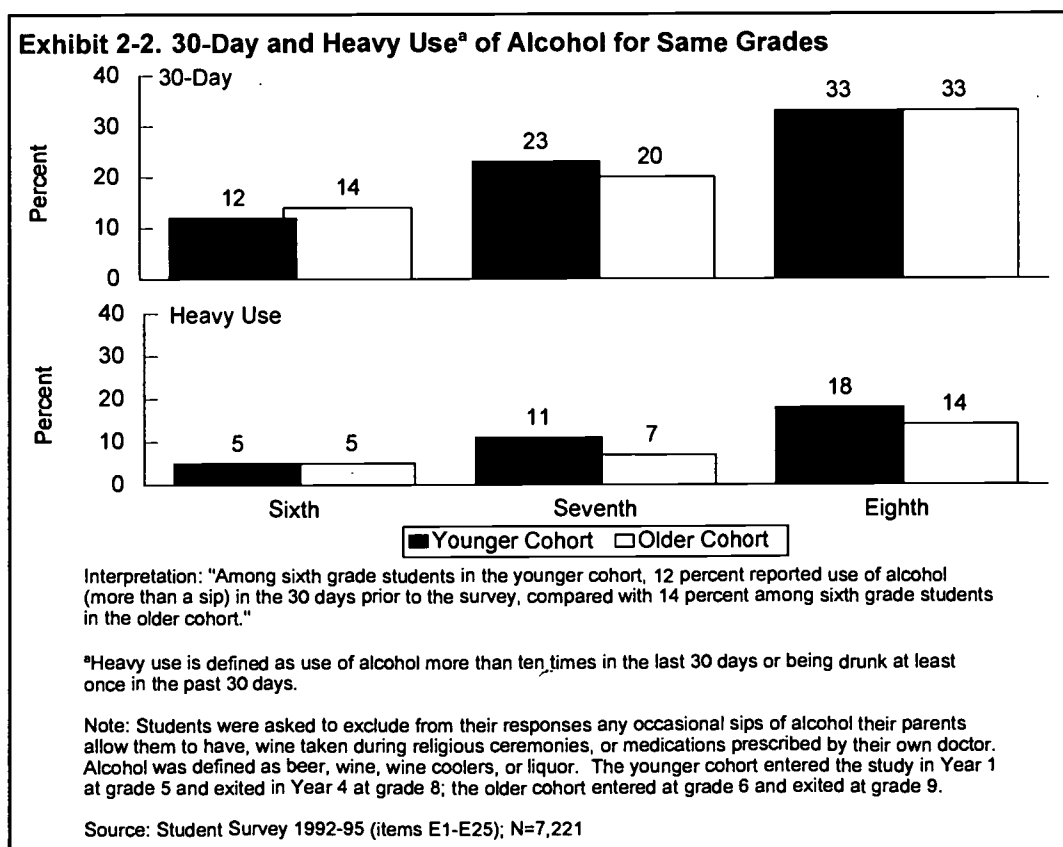
### Drug Use

Survey findings presented in *Exhibit 2-1* indicate that cohorts experienced almost identical lifetime use of alcohol when the comparison was made for the same grade level.



Exactly 41 percent of students in each cohort had ever used alcohol when in the sixth grade; 53 percent of the younger cohort and 51 percent of the older cohort students had done so by the seventh grade; and 64 percent in both cohorts said they had tried alcohol when they reached the eighth grade. These similarities are remarkable given the significant differences observed between cohorts in a given year, as presented in the Final Report. For example, while lifetime use for fifth and sixth grade students differed by 8 percentage points in year 1 (33 percent for the younger cohort vs. 41 percent for the older cohort), the younger students reported the same rate (41 percent) as the older students when they reached the sixth grade.

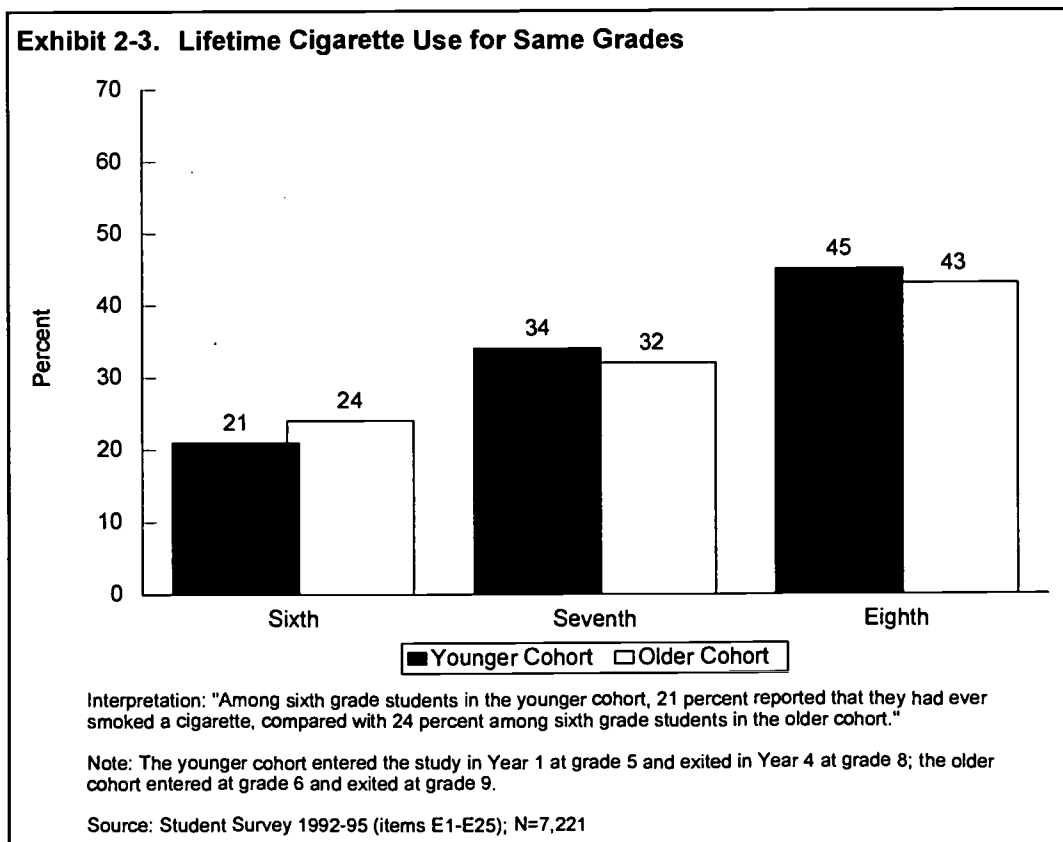
Lifetime use tends to be a more stable statistic than 30-day use because of its cumulative measurement over a long period of time, but it may also be a less useful measure because it cannot decrease, by definition. Therefore, we also compared the groups by grade, on both their 30-day use and their recent "heavy" use (use of a drug more than 10 times in the past 30 days and additionally for alcohol, being drunk at least once during that time). Results presented in *Exhibit 2-2* show that the two groups had comparable outcomes at each grade level, even for these shorter-term measures. By the eighth grade 33 percent in both cohorts reported that they had tried alcohol in the past 30 days while 18 percent of the younger students and 14 percent of the older students were heavy users of alcohol at this age. These data also show, however, that



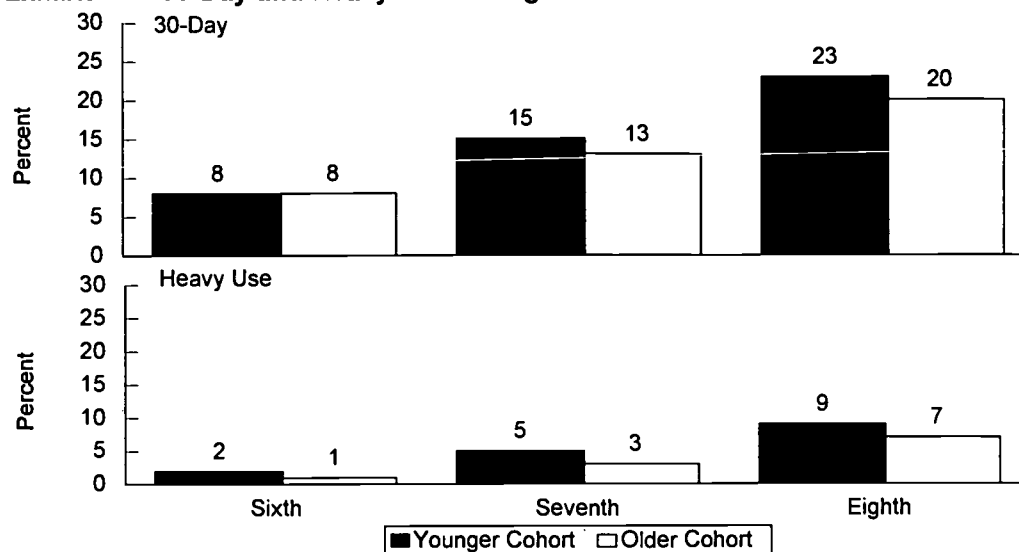
the *rate of increase* in alcohol use over time among the younger cohort was more pronounced than that of the older cohort.

Cigarette use was also highly similar for the two cohorts when compared by grade. While in the sixth grade, the two cohorts reported lifetime use rates of 21 percent and 24 percent respectively, 34 percent and 32 percent in the seventh grade and 45 percent and 43 percent in the eighth grade (*Exhibit 2-3*). Rates for 30-day use and heavy use were also similar, as indicated in *Exhibit 2-4*, with the younger cohort students showing slightly higher use. As the data show, 30-day use at the eighth-grade level was reported by 23 percent of the younger cohort and 20 percent of the older cohort, while 9 percent and 7 percent in each group reported current heavy use for this time period.

We also examined group differences for marijuana use. The data showed that 22 percent of the younger students and 31 percent of the older students reported ever using marijuana when in the eighth and ninth grades, respectively — a difference of 9 percentage points. When compared at the same grade levels, the two cohorts reported similar levels of experiences with marijuana, as shown in *Exhibit 2-5*. The data also show that the younger cohort's *rates increased* somewhat faster than the older cohort's; while 3 percent in both groups had tried



**Exhibit 2-4. 30-Day and Heavy Use<sup>a</sup> of Cigarettes for Same Grades**



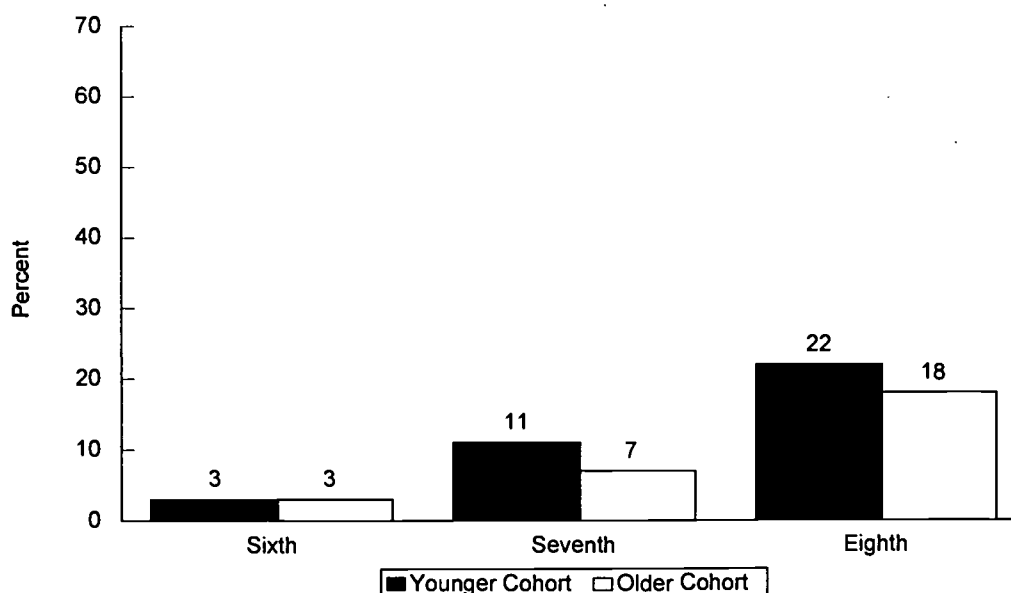
Interpretation: "Among sixth grade students in the younger cohort, 8 percent reported smoking cigarettes at least once in the 30 days prior to the survey; the same response was obtained from sixth grade students in the older cohort."

<sup>a</sup>Heavy use is defined as use of cigarettes more than ten times in the last 30 days.

Note: The younger cohort entered the study in Year 1 at grade 5 and exited in Year 4 at grade 8; the older cohort entered at grade 6 and exited at grade 9.

Source: Student Survey 1992-95 (items E1-E25); N=7,221

**Exhibit 2-5. Lifetime Marijuana Use for Same Grades**



Interpretation: "Among sixth grade students in the younger cohort, 3 percent reported that they had ever smoked marijuana; the same response was obtained from sixth grade students in the older cohort."

Note: The younger cohort entered the study in Year 1 at grade 5 and exited in Year 4 at grade 8; the older cohort entered at grade 6 and exited at grade 9.

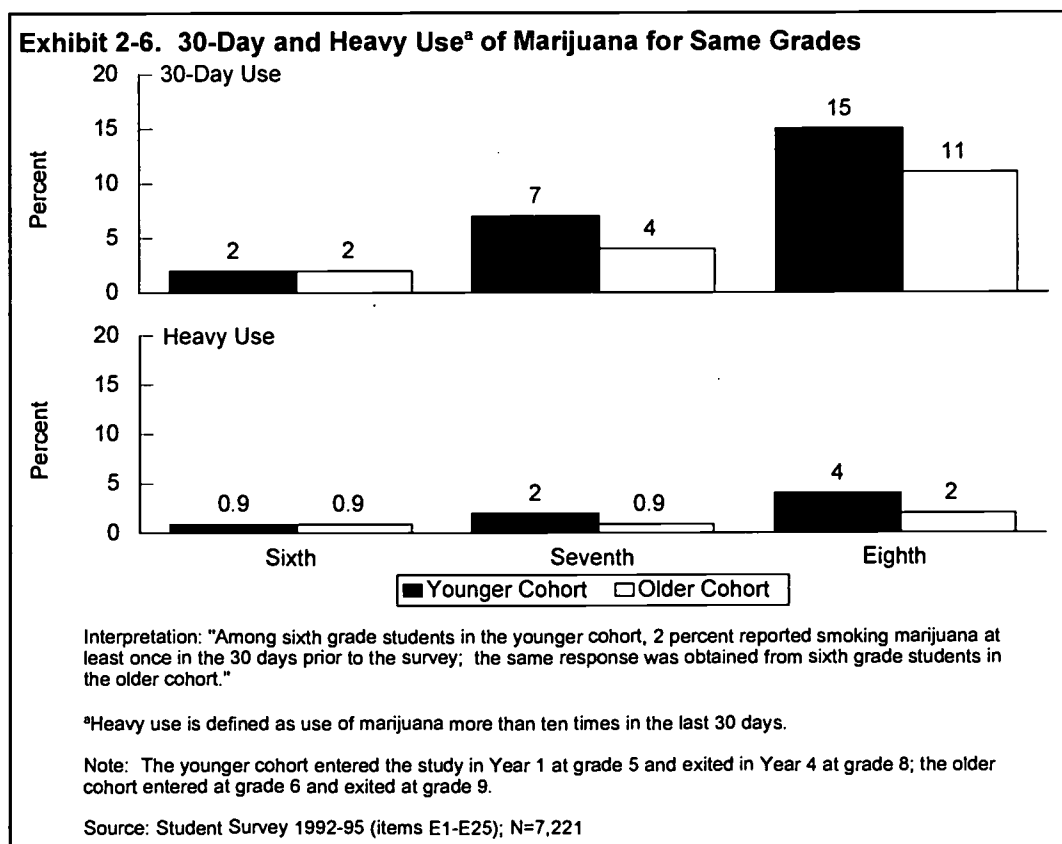
Source: Student Survey 1992-95 (items E1-E25); N=7,221

marijuana in sixth grade, 22 percent of the younger cohort and 18 percent of the older cohort students said the same in eighth grade. A similar pattern of results was found for 30-day and heavy use, as shown in *Exhibit 2-6*.

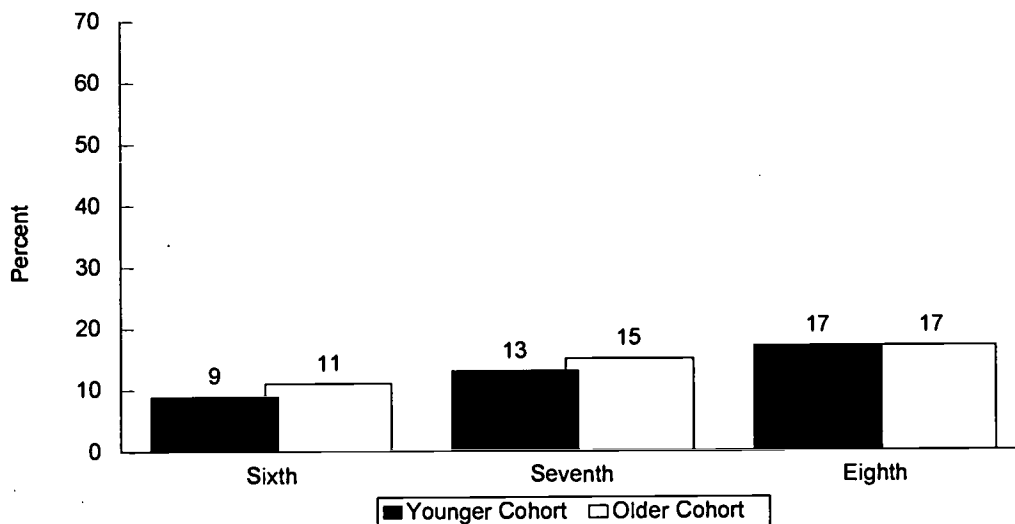
There were minimal differences between the cohorts for inhalant use when compared by grade, yet, again younger cohort students exhibited slightly larger increases than the older cohort students in their lifetime use of inhalants over the course of the study (see *Exhibit 2-7*). Although fewer younger than older students tried inhalants as sixth graders, the two groups had reached the same use rate by the eighth grade (17 percent).

Finally, students surveyed in each of the two cohorts used smokeless tobacco to a similar extent at each grade level, as the data show in *Exhibit 2-8*. For this drug, the younger cohort students did not appear to show a higher rate of use at the same grade level, as we observed for other drugs.

Overall, these data indicate that the level of drug use for one cohort was remarkably similar to the level of drug use experienced by the other cohort at the same grade level. Upon closer examination, the data also show that students who were in fifth grade in 1992 (younger



**Exhibit 2-7. Lifetime Inhalant Use<sup>a</sup> for Same Grades**



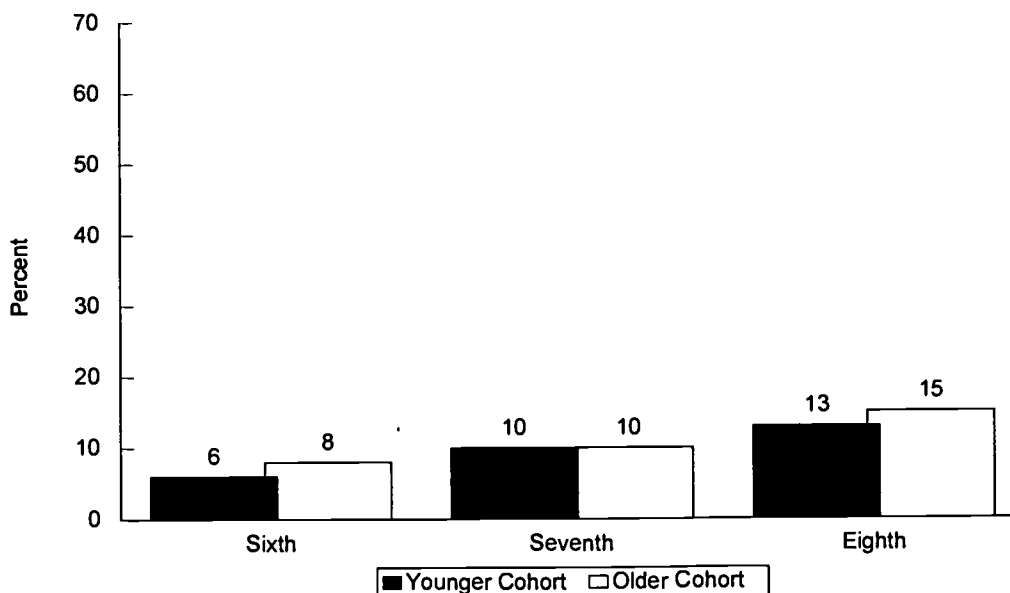
Interpretation: "Among sixth grade students in the younger cohort, 9 percent reported that they had ever used inhalants to get high, compared to 11 percent among sixth grade students in the older cohort."

<sup>a</sup>Inhalant use was defined as "sniffing glue or gas (or other things to get high)."

Note: The younger cohort entered the study in Year 1 at grade 5 and exited in Year 4 at grade 8; the older cohort entered at grade 6 and exited at grade 9. Students were asked to exclude from their responses any medications prescribed by their own doctor.

Source: Student Survey 1992-95 (items E1-E25); N=7,221

**Exhibit 2-8. Lifetime Smokeless Tobacco Use for Same Grades**



Interpretation: "Among sixth grade students in the younger cohort, 6 percent reported that they had ever used smokeless tobacco, compared to 8 percent among sixth grade students in the older cohort."

Note: The younger cohort entered the study in Year 1 at grade 5 and exited in Year 4 at grade 8; the older cohort entered at grade 6 and exited at grade 9.

Source: Student Survey 1992-95 (items E1-E25); N=7,221

cohort), appear to show slightly more rapidly increasing rates of drug use than those who were in sixth grade at that time (older cohort).

## Attitudes Towards Drug Use

Next we examined the cohorts' attitudes towards drug use, as measured by their reactions to various statements about drug use. These are illustrated in *Exhibits 2-9* and *2-10*. Parallel to results obtained for drug use, these results show a striking similarity in responses for the two cohorts, especially at the sixth and seventh grade levels. By the eighth grade, however, fewer of the younger cohort students than the older cohort students showed a negative attitude toward drug use — by reacting to pro-drug statements (*Exhibit 2-9*) or anti-drug statements (*Exhibit 2-10*).

Students' attitudes towards specific drugs also were closely matched by grade level, as shown in *Exhibits 2-11A*, *2-11B*, and *2-11C*. Although for both cohorts these attitudes became less negative toward drug use with each grade, the attitudes of the younger students changed even further than those of the older students, particularly for marijuana; as sixth graders,

**Exhibit 2-9. Percent of Students Who Agreed With Pro-Drug Statements, for Same Grades**

Pro-Drug Statement	Sixth Grade		Seventh Grade		Eighth Grade	
	Younger Cohort	Older Cohort	Younger Cohort	Older Cohort	Younger Cohort	Older Cohort
It is OK for kids under 21 to buy alcohol if they can get away with it.	6	5	10	9	16	13
I would like the chance to get high on drugs.	2	1	5	3	11	8
I think people who like to get stoned or high are cool.	2	2	4	2	8	5
If I were a parent, I would not mind if my kids got high once in a while.	3	3	5	4	9	7
It is OK for anyone to use drugs if they make him or her feel good.	4	3	6	4	11	8
It is OK to try drugs once or twice just to see what they are like.	5	6	12	9	21	16
It is OK for a person to drink alcohol if it makes him or her feel better.	6	6	9	8	14	12
There is really nothing wrong with using most drugs.	6	5	8	6	11	9

Interpretation: "Among sixth grade students in the younger cohort, 6 percent agreed that 'it is okay for kids under 21 to buy alcohol if they can get away with it,' compared with 5 percent among sixth grade students in the older cohort."

Note: The younger cohort entered the study in Year 1 at grade 5 and exited in Year 4 at grade 8; the older cohort entered at grade 6 and exited at grade 9. Drugs were defined as substances that are illegal for students to take. Students were asked to exclude from their response any medications prescribed by their own doctor.. Response categories were: "agree," "neither agree nor disagree," and "disagree."

Source: Student Survey 1992-95 (items B1, B2, B4, B5, B6, B7, B9, B12); N=7,221

Exhibit 2-10. Percent of Students Who Agreed With Anti-Drug Statements, for Same Grades

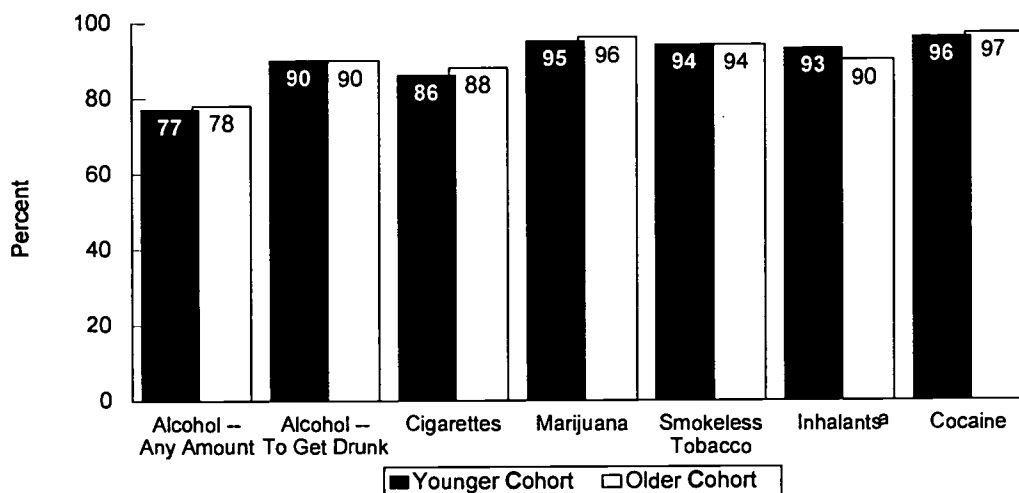
Anti-Drug Statement	Sixth Grade		Seventh Grade		Eighth Grade	
	Younger Cohort	Older Cohort	Younger Cohort	Older Cohort	Younger Cohort	Older Cohort
Taking any kind of illegal drug is a pretty dumb idea.	88	88	80	82	69	73
I don't need drugs to feel good.	92	92	88	90	83	86
Taking drugs is dangerous because drugs are unhealthy.	91	90	87	88	79	83
I would not drink alcohol because it can harm my body.	82	78	70	71	58	59

Interpretation: "Among sixth grade students in the younger cohort, 88 percent agreed that 'taking any kind of illegal drug is a pretty dumb idea'; the same response was obtained from sixth grade students in the older cohort."

Note: The younger cohort entered the study in Year 1 at grade 5 and exited in Year 4 at grade 8; the older cohort entered at grade 6 and exited at grade 9. Drugs were defined as substances that are illegal for students to take. Students were asked to exclude from their response any medications prescribed by their own doctor. Response categories were: "agree," "neither agree nor disagree," and "disagree."

Source: Student Survey 1992-95 (items B3, B8, B10, B11); N=7,221

Exhibit 2-11A. Percent of Sixth Grade Students in Each Cohort Who Viewed Drugs as "Bad" to Use



Interpretation: "Among sixth grade students in the younger cohort, 77 percent believed that alcohol (more than a sip) was 'bad' to use, compared with 78 percent among sixth grade students in the older cohort."

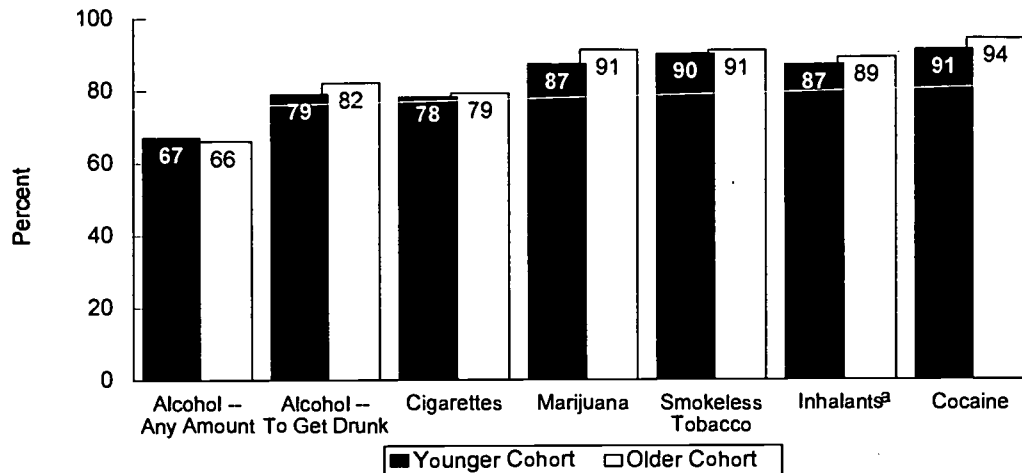
<sup>a</sup>Inhalant use was defined as "sniffing glue or gas (or other things to get high)."

Note: The younger cohort entered the study in Year 1 at grade 5 and exited in Year 4 at grade 8; the older cohort entered at grade 6 and exited at grade 9. Students were asked to exclude from their responses any occasional sips of alcohol their parents allow them to have, wine taken during religious ceremonies, or medications prescribed by their own doctor. Alcohol was defined as beer, wine, wine coolers, or liquor. Response categories were: "a bad thing," "neither good nor bad," and "a good thing."

Source: Student Survey 1992-95 (items C1-C7); N=7,221

BEST COPY AVAILABLE



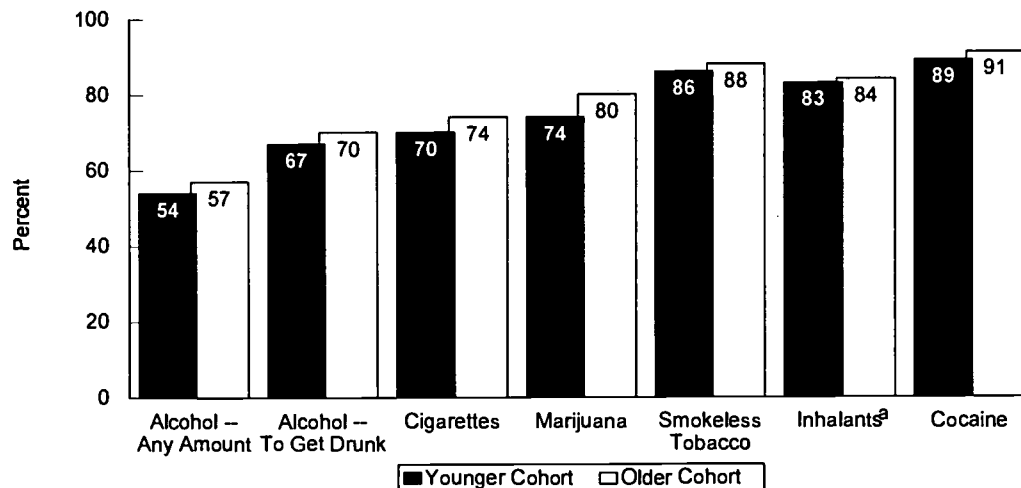
**Exhibit 2-11B. Percent of Seventh Grade Students in Each Cohort Who Viewed Drugs as "Bad" to Use**

Interpretation: "Among seventh grade students in the younger cohort, 67 percent believed that alcohol (more than a sip) was 'bad' to use, compared with 66 percent among seventh grade students in the older cohort."

<sup>a</sup>Inhalant use was defined as "sniffing glue or gas (or other things to get high)."

Note: The younger cohort entered the study in Year 1 at grade 5 and exited in Year 4 at grade 8; the older cohort entered at grade 6 and exited at grade 9. Students were asked to exclude from their responses any occasional sips of alcohol their parents allow them to have, wine taken during religious ceremonies, or medications prescribed by their own doctor. Alcohol was defined as beer, wine, wine coolers, or liquor. Response categories were: "a bad thing," "neither good nor bad," and "a good thing."

Source: Student Survey 1992-95 (items C1-C7); N=7,221

**Exhibit 2-11C. Percent of Eighth Grade Students in Each Cohort Who Viewed Drugs as "Bad" to Use**

Interpretation: "Among eighth grade students in the younger cohort, 54 percent believed that alcohol (more than a sip) was 'bad' to use, compared with 57 percent among eighth grade students in the older cohort."

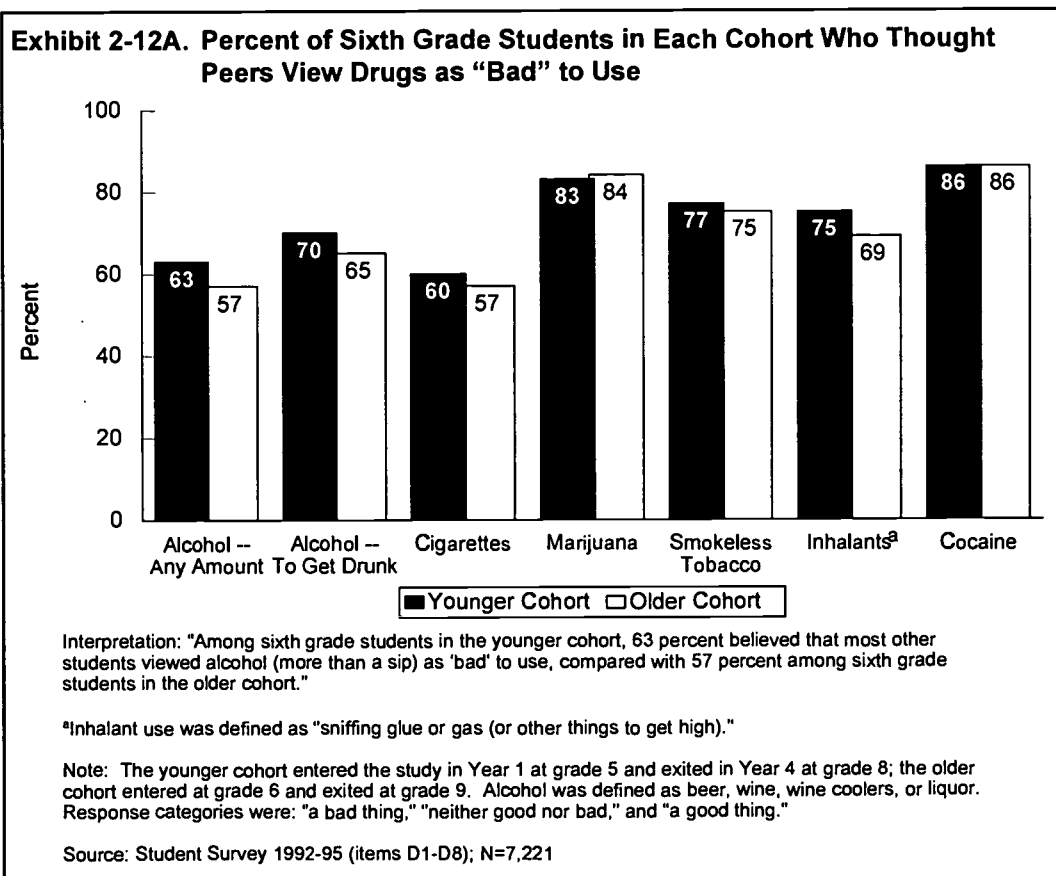
<sup>a</sup>Inhalant use was defined as "sniffing glue or gas (or other things to get high)."

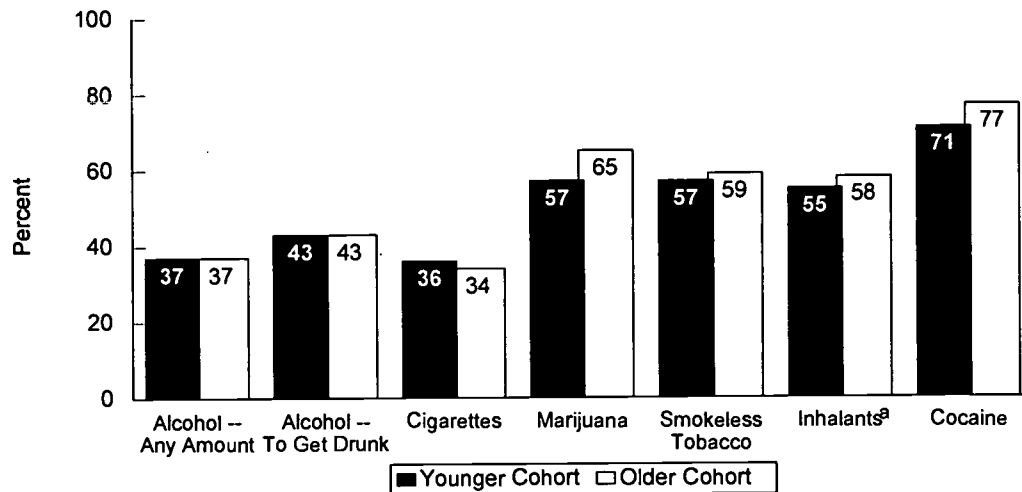
Note: The younger cohort entered the study in Year 1 at grade 5 and exited in Year 4 at grade 8; the older cohort entered at grade 6 and exited at grade 9. Students were asked to exclude from their responses any occasional sips of alcohol their parents allow them to have, wine taken during religious ceremonies, or medications prescribed by their own doctor. Alcohol was defined as beer, wine, wine coolers, or liquor. Response categories were: "a bad thing," "neither good nor bad," and "a good thing."

Source: Student Survey 1992-95 (items C1-C7); N=7,221

95 percent and 96 percent of students in each cohort viewed marijuana as “bad” to use, but as eighth graders, 74 percent of the younger students and 80 percent of the older students held that view.

As we presented in the main report of study findings (Final Report), students’ perceptions of attitudes held by their peers changed tremendously over the course of the study, with many fewer students in eighth and ninth grades compared to fifth and sixth grades still believing that their peers viewed drugs as “bad” to use. A striking finding, as presented in *Exhibits 2-12A, 2-12B, and 2-12C* is that the drastic change in perceptions of peer attitude was almost exactly replicated by the two cohorts. Unlike other results we presented in this section, the perception of peer attitudes held by students in both cohorts became more similar over time when paired by grade. One exception to this finding was perceptions of peer attitude toward marijuana and cocaine; as eighth graders, the younger students were less likely than the older students to think that their peers regarded marijuana and cocaine as “bad” to use.



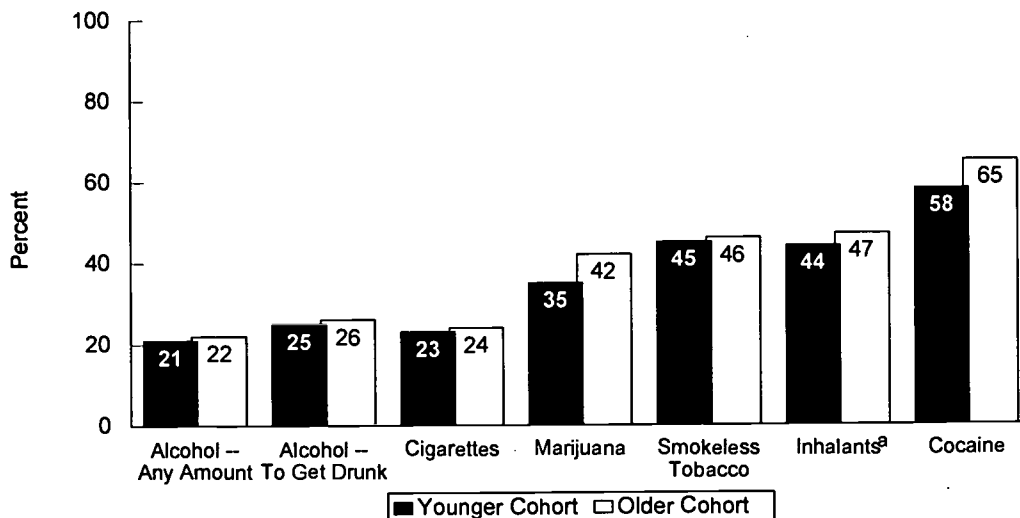
**Exhibit 2-12B. Percent of Seventh Grade Students in Each Cohort Who Thought Peers View Drugs as "Bad" to Use**

Interpretation: "Among seventh grade students in the younger cohort, 37 percent believed that most other students viewed alcohol (more than a sip) as 'bad' to use; the same response was obtained from seventh grade students in the older cohort."

<sup>a</sup>Inhalant use was defined as "sniffing glue or gas (or other things to get high)."

Note: The younger cohort entered the study in Year 1 at grade 5 and exited in Year 4 at grade 8; the older cohort entered at grade 6 and exited at grade 9. Alcohol was defined as beer, wine, wine coolers, or liquor. Response categories were: "a bad thing," "neither good nor bad," and "a good thing."

Source: Student Survey 1992-95 (items D1-D8); N=7,221

**Exhibit 2-12C. Percent of Eighth Grade Students in Each Cohort Who Thought Peers View Drugs as "Bad" to Use**

Interpretation: "Among eighth grade students in the younger cohort, 21 percent believed that most other students viewed alcohol (more than a sip) as 'bad' to use, compared with 22 percent among eighth grade students in the older cohort."

<sup>a</sup>Inhalant use was defined as "sniffing glue or gas (or other things to get high)."

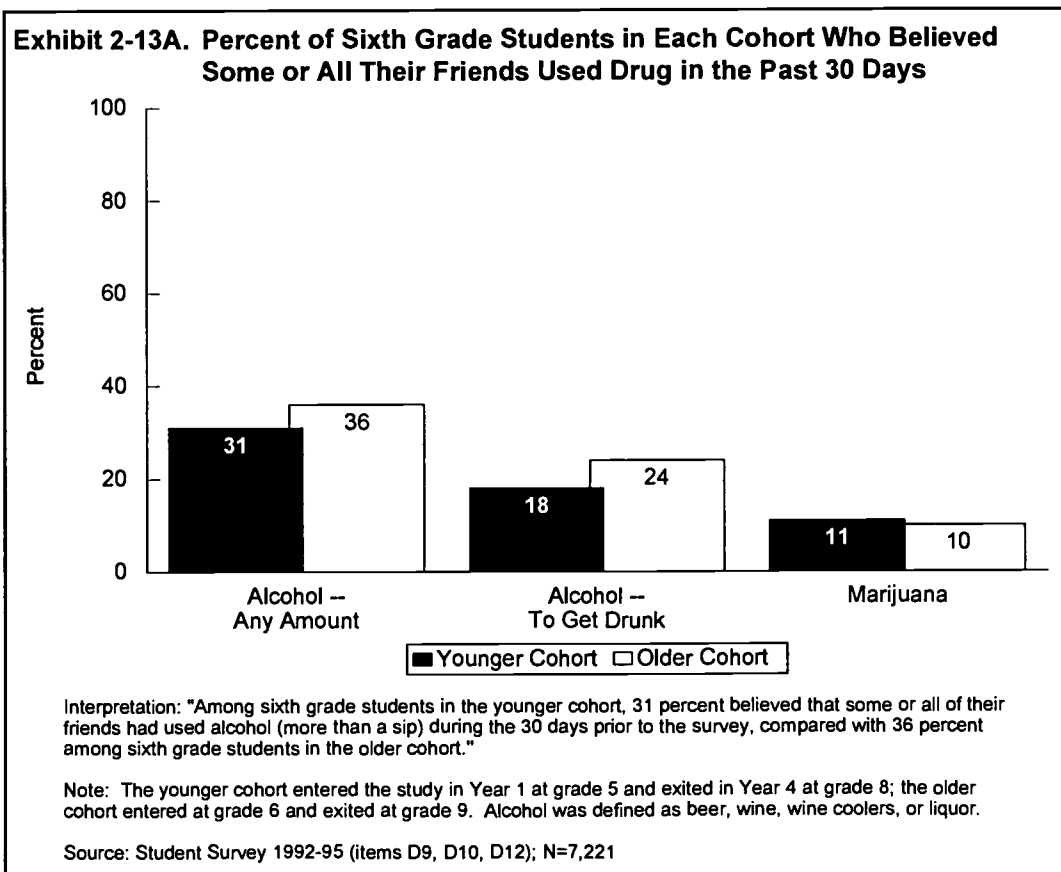
Note: The younger cohort entered the study in Year 1 at grade 5 and exited in Year 4 at grade 8; the older cohort entered at grade 6 and exited at grade 9. Alcohol was defined as beer, wine, wine coolers, or liquor. Response categories were: "a bad thing," "neither good nor bad," and "a good thing."

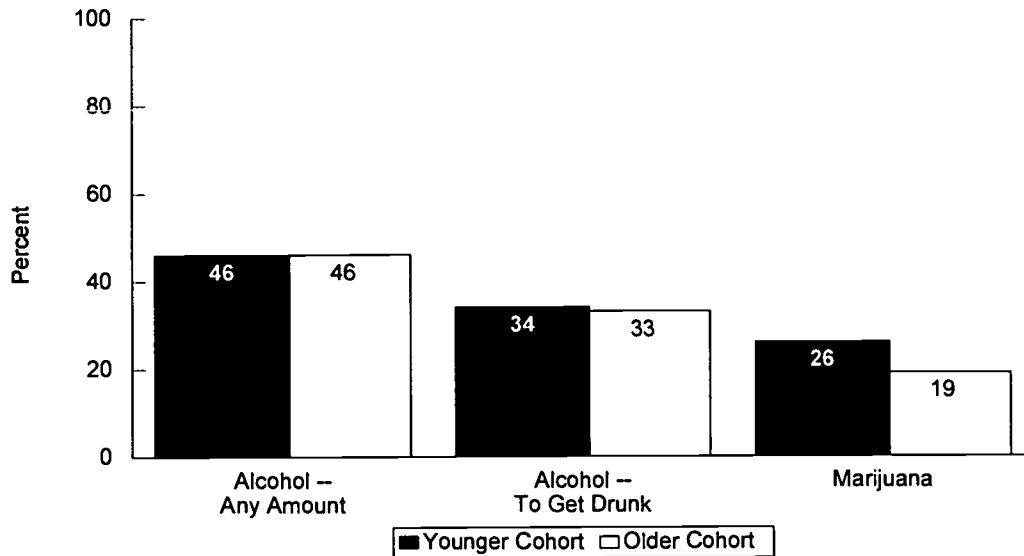
Source: Student Survey 1992-95 (items D1-D8); N=7,221

At each new grade level more of the surveyed students believed that some or all of their friends were using marijuana or alcohol, as the data show in *Exhibits 2-13A, 2-13B, 2-13C*. The cohorts' responses greatly resembled each other when compared by grade level, particularly in seventh and eighth grades; however, more of the younger students than the older students believed in eighth grade that some or all of their friends used marijuana recently.

## Views on Consequences of Drug Use

Finally, we compared cohorts by grade level on responses to statements about the consequences of drug use on school performance, health, and friendships. Results are shown in *Exhibit 2-14*. Although the views of the two cohorts mirrored one another, the views of the younger cohort changed more rapidly than those of the older cohort. As sixth graders, students in the younger cohort were more likely than those in the older cohort to agree that drugs and alcohol had deleterious consequences for school performance, health, and friendships. By eighth grade, the younger students exhibited more skepticism towards most of these consequences than the older students.

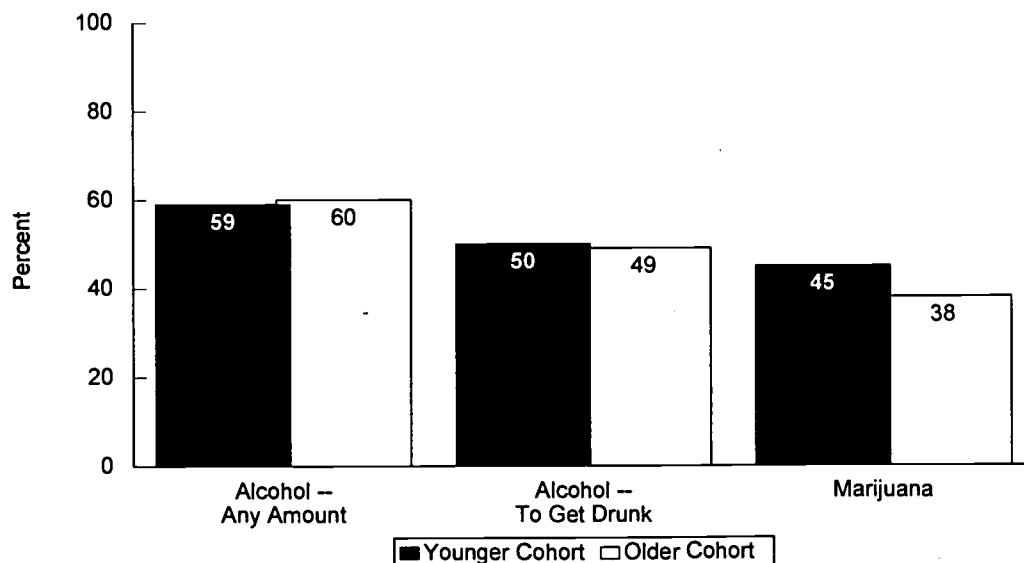


**Exhibit 2-13B. Percent of Seventh Grade Students in Each Cohort Who Believed Some or All Their Friends Used Drug in the Past 30 Days**

Interpretation: "Among seventh grade students in the younger cohort, 46 percent believed that some or all of their friends had used alcohol (more than a sip) during the 30 days prior to the survey; the same response was obtained from seventh grade students in the older cohort."

Note: The younger cohort entered the study in Year 1 at grade 5 and exited in Year 4 at grade 8; the older cohort entered at grade 6 and exited at grade 9. Alcohol was defined as beer, wine, wine coolers, or liquor.

Source: Student Survey 1992-95 (items D9, D10, D12); N=7,221

**Exhibit 2-13C. Percent of Eighth Grade Students in Each Cohort Who Believed Some or All Their Friends Used Drug in the Past 30 Days**

Interpretation: "Among eighth grade students in the younger cohort, 59 percent believed that some or all of their friends had used alcohol (more than a sip) during the 30 days prior to the survey, compared with 60 percent among eighth grade students in the older cohort."

Note: The younger cohort entered the study in Year 1 at grade 5 and exited in Year 4 at grade 8; the older cohort entered at grade 6 and exited at grade 9. Alcohol was defined as beer, wine, wine coolers, or liquor.

Source: Student Survey 1992-95 (items D9, D10, D12); N=7,221

**Exhibit 2-14. Percent of Students Who Agreed With Statements About the Consequences of Drug Use, for Same Grades**

Statement	Sixth Grade		Seventh Grade		Eighth Grade	
	Younger Cohort	Older Cohort	Younger Cohort	Older Cohort	Younger Cohort	Older Cohort
Drinking alcohol (beer, wine, or liquor) makes kids do poorly in school.	80	74	68	69	56	57
Drinking alcohol (beer, wine, or liquor) is bad for a kid's health.	90	87	82	84	73	76
Drinking alcohol (beer, wine, or liquor) makes kids lose their friends.	67	58	50	50	36	34
Drinking alcohol (beer, wine, or liquor) gets a kid in trouble.	86	80	77	79	64	66
Smoking cigarettes makes kids do poorly in school.	67	59	55	52	42	42
Smoking cigarettes is bad for a kid's health.	93	89	87	89	79	83
Smoking cigarettes makes kids lose their friends.	63	53	48	45	36	33
Smoking cigarettes gets a kid in trouble.	83	74	73	71	59	61
Smoking marijuana makes kids do poorly in school.	89	84	81	84	67	73
Smoking marijuana is bad for a kid's health.	94	91	88	92	77	83
Smoking marijuana makes kids lose their friends.	77	68	62	62	46	49
Smoking marijuana gets a kid in trouble.	91	85	84	86	72	77

Interpretation: "Among sixth grade students in the younger cohort, 80 percent agreed that 'using alcohol makes kids do poorly in school,' compared with 74 percent among sixth grade students in the older cohort."

Note: The younger cohort entered the study in Year 1 at grade 5 and exited in Year 4 at grade 8; the older cohort entered at grade 6 and exited at grade 9. Alcohol was defined as beer, wine, wine coolers, or liquor. Response categories were: "agree," "neither agree nor disagree," and "disagree."

Source: Student Survey 1992-95 (items I1-I12); N=7,221

## Implications of Findings

Student drug use, attitudes and perceptions, and views on consequences of drug use were nearly identical in many cases for both cohorts, when the groups were compared at the same grade level. This finding suggests that many of these behaviors and attitudes have a strong association with age that is highly predictable. As we also observed, however, one group (the younger cohort) experienced a more accelerated rate of change in drug use, attitudes and perceptions than the other, suggesting that additional factors influenced the course of these student outcomes. Students in both cohorts in all likelihood received similar prevention programs in each district because they differed by only one grade; therefore, their slight variations in outcomes may be due more to factors outside of the programs. One such factor may be changes in availability and popularity of different drugs (as was the case with marijuana and

inhalants during this study) as well as social attitudes towards drug use. Depending on the students' age or maturity level, these changes may have affected each cohort differently.

The findings on same-grade consistency of outcomes across cohorts, together with the results for age-associated changes in student outcomes as discussed in the Final Report, have several implications for program development and evaluation. First, the sensitivity of drug use behaviors, attitudes, perceptions, and general views on drug use to small variations in age, would seem to suggest that drug prevention programs need to be tailored to the age of the students to be more effective. A program that serves a wide range of grades with the same program components will likely have maximal effects for one or two grades but be much less effective at lower or higher grades. Second, these results show that changes in student drug use and attitudes occur rapidly with age and therefore programs must keep pace with students' changing views. Third, the differences in outcomes at different grade levels would suggest that in evaluating programs through the use of student responses to a survey, care must be taken to both collect and report these data separately by age or grade, or the impact of a program may be lost in collapsing data from wide-ranging age groups.

## *Appendix A:* *Student Survey Composition*

---



# ***Student Survey Composition***

RTI staff of the DFSCA Longitudinal Study developed the student survey based largely on items from existing self-report survey instruments. The survey consisted of approximately 100 to 110 questions, some of which contained multiple items. Fifth and sixth graders completed the survey in about 40 to 50 minutes; by the eighth and ninth grades, students could complete it in 30 minutes or less. During the initial year when students were in fifth and sixth grades, the survey administrators read the entire survey aloud to students in order to keep a uniform pace for the class. During subsequent years we did not read the survey aloud (unless the school requested it) but still allowed students to ask questions by raising their hand.

The core group of questions that remained constant throughout the four years of data collection included the following domains: lifetime and recent (30 days) use of alcohol and other drugs; student and peer attitudes toward drugs; self esteem; refusal skills; and perceived consequences of drug use. Much of the background characteristic data were collected during the first year only, while questions on violence in the school were added during the second year of the study and included in the survey thereafter. A separate, one-page questionnaire inserted into the survey asked students about their participation in the district's drug prevention program; these questions were tailored to each district and updated each year as students participated in new program activities. *Exhibit A-1* below, gives more details about the core content of the survey as well as indicating the sources for items.

## ***Items and scales measuring drug use behaviors***

The drug use items on the student survey referred specifically to the following behaviors/substances:

- Drinking an alcoholic beverage (including beer, wine, wine coolers, and liquor) — other than a sip
- Drinking enough alcohol to get drunk
- Smoking a cigarette
- Using chewing tobacco or snuff
- Using marijuana (pot, grass)
- Sniffing glue or gas (or other things to get high)
- Using cocaine in any form (including powder, crack, or free base)
- Taking steroids for body-building or to improve athletic performance

For each of the substances, the survey contained a series of items, such as those below for marijuana<sup>1</sup>:

In your whole life, how many times have you used marijuana (pot, grass)?

- a. Never
- b. 1 or 2 times
- c. 3 to 9 times
- d. 10 or more times

During the last month (30 days), how many times did you use marijuana (pot, grass)?

- a. Never
- b. 1 or 2 times
- c. 3 to 9 times
- d. 10 or more times

How old were you when you first used marijuana (pot, grass)?

- a. I have never used marijuana (pot, grass)
- b. Less than 8 years old
- c. 8 years old
- d. 9 years old
- e. 10 years old
- f. 11 years old
- g. 12 years old
- h. 13 years old or older

---

<sup>1</sup>Following the first round of data collection, the third item was revised to ask whether their first use of the drug occurred during the current year or in a previous year.

**Exhibit A-1. Core Content Areas and Sources for the Student Survey**

CONTENT AREA	SOURCES	SPECIFIC ITEMS
Background Characteristics	Centers for Disease Control and Prevention (1990) and Bachman (1987)	Age, grade, gender, race/ethnicity, household composition, educational aspirations, parents' education, parents' employment
Attitudes Toward Alcohol and Other Drugs	Moskowitz (1989)	e.g., <i>I think people who like to get stoned or high are cool: Agree; Neither agree nor disagree; Disagree</i>
Peers' Attitudes Toward Alcohol and Other Drugs	Moskowitz (1989)  Bachman (1987)	e.g., <i>I believe MOST STUDENTS in my grade THINK that smoking a cigarette is: A bad thing; Neither good nor bad; A good thing</i> e.g., <i>How many of your closest friends do you THINK have had some kind of alcoholic beverage during the past 30 days? All of them; Most of them; Some of them; None of them</i>
Use of Alcohol and Other Drugs	Centers for Disease Control and Prevention (1990)	For each of the following drugs we asked: <i>How many times in your WHOLE LIFE...? How many times during the last month...? and How old were you when you first...?</i> Alcoholic beverage Cigarette Chewing tobacco or snuff Marijuana Glue or gas Cocaine Steroids
Self Esteem	Institute for Social Research (1991)	e.g., <i>I am able to do things as well as most people: Agree, Neither agree nor disagree; Disagree</i>
Refusal Skills and Assertiveness	Hansen (1990)	e.g., <i>Pretend your best friend offered you a cigarette and you did not want it. How hard would it be to say "no"?</i>
Perceived Consequences of Alcohol and Other Drug Use	Moskowitz (1989)	e.g., <i>Drinking alcohol (beer, wine, or liquor) makes kids do poorly in school</i>
Participation in Drug Prevention Education	Project Staff	Participation in specific program components
School Violence	Bastian (1991)	e.g., <i>In the last six months, did a student attack or threaten to attack a teacher in your school?</i>

BEST COPY AVAILABLE

## Bibliography

Bachman, J., Johnston, L., and O'Malley, P. (1987). *Monitoring the Future: Questionnaire Responses from the Nation's High School Seniors, 1987*. Ann Arbor, MI: University of Michigan.

Bastian, L.D., and Taylor, B.M. (1991). *School Crime: A National Crime Victimization Survey Report*. U.S. Department of Justice, Bureau of Justice Statistics. NCJ-131645.

Centers for Disease Control and Prevention (1990). *Youth Risk Behavior Survey*.

Hansen, W. (1990). *Student Survey*. S002VOO3.QST

Institute for Social Research (1991). *Monitoring the Future: Questionnaire for Grades 8 and 10*. Ann Arbor, MI: University of Michigan.

Moskowitz, J. (1989). The primary prevention of alcohol problems: A critical review of the research literature. *Journal of Studies on Alcohol*, 50: 54-88.

*Appendix B:*  
*Student Survey — Spring 1995*

---

Place label here

# **DFSCA Outcomes Study**

## **STUDENT SURVEY**

Study Conducted by:

Research Triangle Institute  
P.O. Box 12194  
Research Triangle Park, NC 27709-2194  
Suyapa Silvia, Project Director  
Judy Thorne, Principal Investigator  
ED Contract No. LC90070001

*This survey is being conducted by the Research Triangle Institute for the U.S. Department of Education. Your school district's drug prevention program is one of 19 throughout the country that have participated in the study for the past three years.*

*Once again we are asking you to help us understand what you and your fellow students currently think about tobacco, alcohol, and other kinds of drugs by answering these questions. The questions ask you about a number of different things, including what you think about taking drugs and your decisions to use or not to use cigarettes, alcohol, and other kinds of drugs. This is not a test. There are no right or wrong answers to the questions. We are only interested in what you believe or think about various things. Many of the questions are the same as last year. We are asking them again because we want to know what you think now. Your responses might be the same as last year, or they might not.*

*Answering this survey is up to you. It will take about 40 minutes. We hope that you will answer all of the questions; but if you find one you do not want to answer, leave it blank.*

*Do NOT write your name anywhere on the booklet. Your answers will be kept totally secret.*

*When you are finished, seal your booklet with the peel-back seal you'll find on the inside back cover so no one will see your answers.*

### **INSTRUCTIONS**

*Make sure you have a survey booklet, a separate yellow form tucked inside the booklet, and a pencil. Mark your answers directly on the booklet and on the yellow form.*

*Please select **ONE** answer for each of the questions. As you read the questions, choose the answer that best describes what **YOU** think or feel. If you don't always find an answer that fits exactly, use the **ONE** that comes closest.*

*Please follow these instructions carefully:*

- *Mark your answers by circling the number next to the answer you chose or by checking a box.*
- *Erase completely any answer you wish to change.*
- *If you want to comment on a question or explain a response, you may do so in the margins.*
- *To comment on the survey in general, please use the blank "comment page" on the back of the booklet.*

*Your name appears on the front cover and on the yellow form. Please pull off just the strips with your name on them now and discard them. The bar code will remain. If you want to know more about why we use bar codes and how we keep your answers secret, you can read about that on the last page of the booklet.*

**Section A: For each question, please mark the ONE choice that describes you best.**

**A-1. What grade are you in?**

1. 7th grade
2. 8th grade
3. 9th grade
4. 10th grade
5. Another grade

**A-2. Compared to how other students in your class are doing with grades, what kind of student would you say you are?**

1. One of the top
2. Above the middle
3. In the middle
4. Below the middle
5. Near the bottom

**A-3. How much of the time do you live with the following adults? (CHECK ONE BOX FOR EACH ROW)**

Adults	Always	Sometimes	Never
a. My father (or stepfather)	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3
b. My mother (or stepmother)	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3
c. My foster parents	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3
d. My grandparents	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3
e. Other adult relatives	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3
f. An adult or adults I am NOT related to	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3

**A-4. Do you think you will: (CHECK ONE BOX FOR EACH ROW)**

Question	Yes	No
a. Quit school before finishing high school	<input type="checkbox"/> 1	<input type="checkbox"/> 2
b. Graduate from high school	<input type="checkbox"/> 1	<input type="checkbox"/> 2
c. Go to vocational or trade school (for example, auto mechanics, computer technician)	<input type="checkbox"/> 1	<input type="checkbox"/> 2
d. Go to college	<input type="checkbox"/> 1	<input type="checkbox"/> 2



**A-5. What is the highest level of schooling your mother (or stepmother) completed so far?**

1. Completed grade school or less
2. Some high school
3. Completed high school
4. Some college or vocational/trade school
5. Completed college
6. Graduate/professional school after college
7. Don't know

**A-6. Does your mother (or stepmother) currently have a paid job? (This could include working at home—for example, farming, running a home daycare, or auto mechanics)**

1. Yes
2. No
3. Don't know

**A-7. What is the highest level of schooling your father or (stepfather) completed so far?**

1. Completed grade school or less
2. Some high school
3. Completed high school
4. Some college or vocational/trade school
5. Completed college
6. Graduate/professional school after college
7. Don't know

**A-8. Does your father (or stepfather) currently have a paid job? (This could include working at home—for example, farming, running a home daycare, or auto mechanics)**

1. Yes
2. No
3. Don't know

**WHAT WE MEAN BY "DRUGS."**

Many of these questions in this survey use the words "alcohol," "tobacco," and "drugs." What we mean is:

**Alcohol:** Beer, wine, wine coolers, or liquor. We **DON'T** mean to include sips taken in religious ceremonies or occasional sips given to you by your parents.

**Tobacco:** Cigarettes, cigars, pipe tobacco, chewing tobacco, or snuff.

**Drugs:** Drugs that are illegal for students to take, such as marijuana, cocaine, or inhalants. Do **NOT** include drugs prescribed for you by a doctor.

**Section B:** The following questions ask what you think about alcohol and drugs. We hope that you will answer all of the questions; but if you find one you do not want to answer, leave it blank. For **EACH** statement, please mark the **ONE** choice that shows best how you feel.

**B-1. It is OK for kids under 21 to buy alcohol if they can get away with it.**

1. Agree
2. Neither agree nor disagree
3. Disagree

**B-2. I would like the chance to get high on drugs.**

1. Agree
2. Neither agree nor disagree
3. Disagree

**B-3. Taking any kind of illegal drugs is a pretty dumb idea.**

1. Agree
2. Neither agree nor disagree
3. Disagree

**B-4. I think people who like to get stoned or high are cool.**

1. Agree
2. Neither agree nor disagree
3. Disagree

**B-5. If I were a parent, I wouldn't mind if my kids got high once in a while.**

1. Agree
2. Neither agree nor disagree
3. Disagree

**B-6. It is OK for anyone to use drugs if they make him or her feel good.**

1. Agree
2. Neither agree nor disagree
3. Disagree

**B-7. It is OK to try drugs once or twice just to see what they are like.**

1. Agree
2. Neither agree nor disagree
3. Disagree

**B-8. I don't need drugs to feel good.**

1. Agree
2. Neither agree nor disagree
3. Disagree

**B-9. It is OK for a person to drink alcohol if it makes him or her feel better.**

1. Agree
2. Neither agree nor disagree
3. Disagree

**B-10. Taking drugs is dangerous because drugs are unhealthy.**

1. Agree
2. Neither agree nor disagree
3. Disagree

**B-11. I would not drink alcohol because it can harm my body.**

1. Agree
2. Neither agree nor disagree
3. Disagree

**B-12. There is really nothing wrong with using most drugs.**

1. Agree
2. Neither agree nor disagree
3. Disagree

**Section C: The following questions ask how you feel about using alcohol, tobacco, and drugs. For EACH statement, please mark the ONE choice that shows best how you feel.**

**C-1. I think that for me, drinking alcoholic beverages (beer, wine, liquor) is**

1. A bad thing
2. Neither good nor bad
3. A good thing

**C-2. I think that for me, smoking a cigarette is**

1. A bad thing
2. Neither good nor bad
3. A good thing

**C-3. I think that for me, using chewing tobacco or snuff is**

1. A bad thing
2. Neither good nor bad
3. A good thing

**C-4. I think that for me, using marijuana (pot, grass) is**

1. A bad thing
2. Neither good nor bad
3. A good thing

**C-5. I think that for me, sniffing glue or gas (or other things to get high) is**

1. A bad thing
2. Neither good nor bad
3. A good thing

**C-6. I think that for me, using alcohol to get drunk is**

1. A bad thing
2. Neither good nor bad
3. A good thing

**C-7. I think that for me, using cocaine or crack is**

1. A bad thing
2. Neither good nor bad
3. A good thing

**C-8. I think that for me, using steroids for body-building or to improve my athletic performance is**

1. A bad thing
2. Neither good nor bad
3. A good thing

**C-9. Do you agree or disagree that . . . (CHECK ONE BOX FOR EACH ROW)**

	Agree	Neither Agree nor Disagree	Disagree
a. Smokers know how to enjoy life more than non-smokers.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3
b. I would rather date people who don't smoke.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3
c. Cigarettes are not as bad for you as some people say.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3
d. I personally don't mind being around people who are smoking.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3
e. Smoking is a dirty habit.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3

**Section D:** *The following questions ask about how you think other students feel about using alcohol, tobacco, and drugs. For EACH statement, please mark the ONE choice that shows best what you believe most students in your grade think.*

**D-1.** I believe MOST STUDENTS in my grade THINK that drinking alcoholic beverages (beer, wine, liquor) is

1. A bad thing
2. Neither good nor bad
3. A good thing

**D-2.** I believe MOST STUDENTS in my grade THINK that smoking a cigarette is

1. A bad thing
2. Neither good nor bad
3. A good thing

**D-3.** I believe MOST STUDENTS in my grade THINK that using chewing tobacco or snuff is

1. A bad thing
2. Neither good nor bad
3. A good thing

**D-4.** I believe MOST STUDENTS in my grade THINK that using marijuana (pot, grass) is

1. A bad thing
2. Neither good nor bad
3. A good thing

**D-5.** I believe MOST STUDENTS in my grade THINK that sniffing glue or gas (or other things to get high) is

1. A bad thing
2. Neither good nor bad
3. A good thing

**D-6.** I believe MOST STUDENTS in my grade THINK that using alcohol to get drunk is

1. A bad thing
2. Neither good nor bad
3. A good thing

**D-7.** I believe MOST STUDENTS in my grade THINK that using cocaine or crack is

1. A bad thing
2. Neither good nor bad
3. A good thing

**D-8.** I believe MOST STUDENTS in my grade THINK that using steroids for body-building or to improve athletic performance is

1. A bad thing
2. Neither good nor bad
3. A good thing

**D-9.** How many of your closest friends do you THINK have used marijuana during the past 30 days?

1. All of them
2. Most of them
3. Some of them
4. None of them

D-10. How many of your closest friends do you THINK have been drunk during the past 30 days?

1. All of them
2. Most of them
3. Some of them
4. None of them

D-11. "People who use drugs are stupid." How do you THINK your closest friends feel about this statement?

1. Agree
2. Neither agree nor disagree
3. Disagree

D-12. How many of your closest friends do you THINK have had some kind of alcoholic beverage during the past 30 days?

1. All of them
2. Most of them
3. Some of them
4. None of them

D-13. "It is cool to get drunk." How do you THINK your closest friends feel about this statement?

1. Agree
2. Neither agree nor disagree
3. Disagree

**Section E:** *The following questions ask about different drugs, tobacco, and alcohol. We hope that you will answer all of the questions; but if you find one you do not want to answer, leave it blank.*

E-1. Do your parents sometimes allow you to have an occasional sip (or a very small amount) of an alcoholic beverage (including beer, wine, wine coolers, or liquor)?

1. Yes
2. No

*For the questions below, DON'T include any occasional sips of an alcoholic beverage that your parents allow you to have. Also, do not report drugs prescribed for you by a doctor or wine sipped in religious ceremonies. For each question, please mark ONE choice.*

E-2. In your **WHOLE LIFE**, how many times have you had an alcoholic beverage (including beer, wine, wine coolers, and liquor)?

1. Never
2. 1 or 2 times
3. 3 to 9 times
4. 10 or more times

E-3. During the last month (30 days), how many times did you drink an alcoholic beverage?

1. Never
2. 1 or 2 times
3. 3 to 9 times
4. 10 or more times

**E-4. If you have ever had an alcoholic beverage, when did you first drink one?**

1. Never drank one
2. Had my first drink this school year
3. Had my first drink before this school year

**E-5. In your WHOLE LIFE, how many times have you smoked a cigarette?**

1. Never
2. 1 or 2 times
3. 3 to 9 times
4. 10 or more times

**E-6. During the last month (30 days), how many times did you smoke a cigarette?**

1. Never
2. 1 or 2 times
3. 3 to 9 times
4. 10 or more times

**E-7. If you have ever smoked a cigarette, when did you first smoke one?**

1. Never smoked one
2. Smoked one for the first time this school year
3. Smoked one for the first time before this school year

**E-8. In your WHOLE LIFE, how many times have you used chewing tobacco or snuff?**

1. Never
2. 1 or 2 times
3. 3 to 9 times
4. 10 or more times

**E-9. During the last month (30 days), how many times did you use chewing tobacco or snuff?**

1. Never
2. 1 or 2 times
3. 3 to 9 times
4. 10 or more times

**E-10. If you have ever used chewing tobacco or snuff, when did you first use it?**

1. Never used it
2. Used it for the first time this school year
3. Used it for the first time before this school year

**E-11. In your WHOLE LIFE, how many times have you used marijuana (pot, grass)?**

1. Never
2. 1 or 2 times
3. 3 to 9 times
4. 10 or more times

**E-12. During the last month (30 days), how many times did you use marijuana (pot, grass)?**

1. Never
2. 1 or 2 times
3. 3 to 9 times
4. 10 or more times

**E-13. If you have ever used marijuana (pot, grass), when did you first use it?**

1. Never used it
2. Used it for the first time this school year
3. Used it for the first time before this school year

**E-14. In your WHOLE LIFE, how many times have you sniffed glue or gas (or other things to get high)?**

1. Never
2. 1 or 2 times
3. 3 to 9 times
4. 10 or more times

**E-15. During the last month (30 days), how many times did you sniff glue or gas (or other things to get high)?**

1. Never
2. 1 or 2 times
3. 3 to 9 times
4. 10 or more times

**E-16. If you have ever sniffed glue or gas (or other things to get high), when did you first do this?**

1. Never did this
2. Did this for the first time this school year
3. Did this for the first time before this school year

**E-17. In your WHOLE LIFE, how many times have you gotten drunk on alcohol?**

1. Never
2. 1 or 2 times
3. 3 to 9 times
4. 10 or more times

**E-18. During the last month (30 days), how many times have you gotten drunk on alcohol?**

1. Never
2. 1 or 2 times
3. 3 to 9 times
4. 10 or more times

**E-19. If you have ever gotten drunk on alcohol, when did you get drunk the first time?**

1. Never gotten drunk
2. Got drunk for the first time this school year
3. Got drunk for the first time before this school year

**E-20. In your WHOLE LIFE, how many times have you used cocaine in any form (including powder, crack, or freebase)?**

1. Never
2. 1 or 2 times
3. 3 to 9 times
4. 10 or more times

**E-21. During the last month (30 days), how many times did you use cocaine in any form (including powder, crack, or freebase)?**

1. Never
2. 1 or 2 times
3. 3 to 9 times
4. 10 or more times

**E-22. If you have ever used cocaine in any form (including powder, crack, or freebase), when did you first use it?**

1. Never used it
2. Used it for the first time this school year
3. Used it for the first time before this school year

**E-23. In your WHOLE LIFE, how many times have you taken steroids for body-building or to improve your athletic performance?**

1. Never
2. 1 or 2 times
3. 3 to 9 times
4. 10 or more times

**E-24. During the last month (30 days), how many times have you taken steroids for body-building or to improve your athletic performance?**

1. Never
2. 1 or 2 times
3. 3 to 9 times
4. 10 or more times

**E-25. If you have ever taken steroids for body-building or to improve your athletic performance, when did you first take these?**

1. Never took them
2. Took them for the first time this school year
3. Took them for the first time before this school year

**E-26. During the last month (30 days), how many times have you been in a car or truck or on a motorcycle driven by someone who had been drinking alcohol or using other drugs?**

1. Never
2. 1 or 2 times
3. 3 to 9 times
4. 10 or more times



**E-27. During the last year (12 months), how often (if ever) have you used alcohol in each of the following places? (CHECK ONE BOX FOR EACH ROW)**

Places	Never	1-2 times	3-5 times	6 or more times
a. At your home	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
b. At friends' houses	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
c. At a school dance, a game, or other school event	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
d. At school during the day	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
e. In a car	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
f. At parties	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
g. At relatives' houses	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
h. At a park or other outdoor place	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4

**Section F: The following questions ask about some of your activities in and out of school. For each one, please mark the ONE choice that best describes you.**

**F-1. On an average school day, how many hours a day do you watch television and videos or play computer or video games before or after school?**

1. 0 hours
2. Less than 1 hour a day
3. 1 to 3 hours a day
4. 3 to 4 hours a day
5. 4 to 6 hours a day
6. More than 6 hours a day

**F-2. On an average school day, how many hours a day do you spend on your homework including time in school and out of school?**

1. 0 hours
2. Less than 1 hour a day
3. 1 to 2 hours a day
4. 2 to 3 hours a day
5. 3 to 4 hours a day
6. More than 4 hours a day

**BEST COPY AVAILABLE**

**F-3. How often do you do each of the following? (CHECK ONE BOX FOR EACH ROW)**

Question	Almost every day	At least once a week	Once or twice a month	A few times a year	Never
a. Go to movies	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
b. Go to concerts	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
c. Ride around in a car (or on a motorcycle) just for fun	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
d. Do volunteer work in my community	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
e. Actively participate in sports, athletics, or exercising	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
f. Get together with friends informally/hang out	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
g. Go shopping or window-shopping	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
h. Read magazines	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
i. Read newspapers	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
j. Go to parties or other social gatherings	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5

**F-4. Now, thinking back over this school year, how often did you . . . (CHECK ONE BOX FOR EACH ROW)**

Question	Never or Almost Never	Sometimes	Often	Almost always
a. enjoy being in school?	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
b. hate being in school?	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
c. try to do your best work in school?	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
d. find the school work too hard to understand?	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
e. find your classes interesting?	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
f. fail to complete or turn in your assignments?	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
g. get sent to the office, or have to stay after school, because you misbehaved?	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4

**Section G: The following questions ask about some of the things in your life. For each statement, please mark only ONE choice.**

**G-1. I feel good about myself.**

1. Agree
2. Neither agree nor disagree
3. Disagree

**G-2. I feel I do not have much to be proud of.**

1. Agree
2. Neither agree nor disagree
3. Disagree

**G-3. Life often seems like it doesn't have any meaning or purpose.**

1. Agree
2. Neither agree nor disagree
3. Disagree

**G-4. I am able to do things as well as most people.**

1. Agree
2. Neither agree nor disagree
3. Disagree

**G-5. I'm satisfied with myself most of the time.**

1. Agree
2. Neither agree nor disagree
3. Disagree

**G-6. I feel that I can't do anything right.**

1. Agree
2. Neither agree nor disagree
3. Disagree

**G-7. How much do you like the neighborhood where you live?**

1. Like it a lot
2. Like it some
3. Dislike it some
4. Dislike it a lot

**G-8. How much do you like your school?**

1. Like it a lot
2. Like it some
3. Dislike it some
4. Dislike it a lot

**Section H:** The following section asks questions about how you would feel if your friends offered you tobacco, alcohol, or drugs. For each statement, please mark the **ONE** choice that shows best how you feel.

**H-1.** Pretend your best friend offered you marijuana and you did not want it. How hard would it be to say "no"?

1. Very hard
2. Hard
3. Not hard at all

**H-2.** Pretend your best friend offered you a drink of beer or wine and you did not want it. How hard would it be to say "no"?

1. Very hard
2. Hard
3. Not hard at all

**H-3.** Pretend your best friend offered you a cigarette and you did not want it. How hard would it be to say "no"?

1. Very hard
2. Hard
3. Not hard at all

**H-4.** Think of all that you've heard about alcohol and other drugs. How much of it came from:  
(CHECK ONE BOX FOR EACH ROW)

Question	None	Some	A lot
a. friends/peers?	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3
b. your parents?	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3
c. brothers or sisters?	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3
d. school program/class?	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3
e. a counselor/teacher/nurse?	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3
f. TV/radio?	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3
g. magazines/newspapers/books?	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3
h. another person (such as grandparents, other relatives, minister, priest, or rabbi)?	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3

BEST COPY AVAILABLE

H-5. Imagine you were using drugs or alcohol so much that you needed help. Would you want to talk about it with: (CHECK ONE BOX FOR EACH ROW)

Question	Yes	No
a. a friend/peer?	<input type="checkbox"/> 1	<input type="checkbox"/> 2
b. your parents or stepparents?	<input type="checkbox"/> 1	<input type="checkbox"/> 2
c. a brother or sister?	<input type="checkbox"/> 1	<input type="checkbox"/> 2
d. grandparents or other adult relatives (such as an aunt or uncle)?	<input type="checkbox"/> 1	<input type="checkbox"/> 2
e. a teacher, coach, counselor, or nurse at school?	<input type="checkbox"/> 1	<input type="checkbox"/> 2
f. a medical doctor, therapist, or counselor outside of school?	<input type="checkbox"/> 1	<input type="checkbox"/> 2
g. a minister, priest, or rabbi?	<input type="checkbox"/> 1	<input type="checkbox"/> 2
h. a cousin	<input type="checkbox"/> 1	<input type="checkbox"/> 2
i. a neighbor, the parent of a friend, or other close friend of the family	<input type="checkbox"/> 1	<input type="checkbox"/> 2
j. a police officer	<input type="checkbox"/> 1	<input type="checkbox"/> 2

**Section I: The following questions ask about how you feel about the results of using alcohol, tobacco, and drugs. For each statement, please mark the ONE choice that shows best what you think.**

I-1. Drinking alcohol (beer, wine, or liquor) makes kids do poorly in school.

1. Agree
2. Neither agree nor disagree
3. Disagree

I-2. Drinking alcohol (beer, wine, or liquor) is bad for a kid's health.

1. Agree
2. Neither agree nor disagree
3. Disagree

I-3. Drinking alcohol (beer, wine, or liquor) makes kids lose their friends.

1. Agree
2. Neither agree nor disagree
3. Disagree

I-4. Drinking alcohol (beer, wine, or liquor) gets a kid in trouble.

1. Agree
2. Neither agree nor disagree
3. Disagree

**I-5. Smoking cigarettes makes kids do poorly in school.**

1. Agree
2. Neither agree nor disagree
3. Disagree

**I-6. Smoking cigarettes is bad for a kid's health.**

1. Agree
2. Neither agree nor disagree
3. Disagree

**I-7. Smoking cigarettes makes kids lose their friends.**

1. Agree
2. Neither agree nor disagree
3. Disagree

**I-8. Smoking cigarettes gets a kid in trouble.**

1. Agree
2. Neither agree nor disagree
3. Disagree

**I-9. Smoking marijuana makes kids do poorly in school.**

1. Agree
2. Neither agree nor disagree
3. Disagree

**I-10. Smoking marijuana is bad for a kid's health.**

1. Agree
2. Neither agree nor disagree
3. Disagree

**I-11. Smoking marijuana makes kids lose their friends.**

1. Agree
2. Neither agree nor disagree
3. Disagree

**I-12. Smoking marijuana gets a kid in trouble.**

1. Agree
2. Neither agree nor disagree
3. Disagree

**Section J: The following questions ask about gangs and violence at your school. For each question, please mark ONE choice.**

**J-1. Are there any street gangs at your school?**

1. Yes
2. No
3. Don't know

**J-2. How often do street gang members fight with each other at school?**

1. Never or almost never
2. Once or twice a year
3. Once or twice a month
4. Once or twice a week
5. Almost every day
6. Don't know

**J-3. In the last six months, did a student attack or threaten to attack a teacher in your school?**

1. Yes
2. No
3. Don't know

**J-4. During the past six months, did anyone steal something from your desk, locker, or anywhere else at school?**

1. Yes
2. No

**J-5. Is it safe to store money or valuables (for example, a watch or jewelry) in your locker at school?**

1. Yes
2. No

**J-6. During the past six months, did anyone physically attack or pick a fight with you at school?**

1. Yes
2. No

**J-7. During the past six months, did YOU physically attack or pick a fight with anyone at school?**

1. Yes
2. No

**J-8. Are you ever afraid that someone will attack or harm you at school?**

1. Always
2. Sometimes
3. Never

**J-9. Are you ever afraid that someone will attack or harm you on the way to and from school?**

1. Always
2. Sometimes
3. Never

**J-10. Do you avoid any of the following places because you think they are unsafe? (CHECK ONE BOX FOR EACH ROW)**

Place	Never	Sometimes	Always
a. School bathrooms	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3
b. School cafeteria	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3
c. Gym or gym locker room	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3
d. Parking lot or other school grounds	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3
e. Neighborhood around the school	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3

---

## ***How We Keep Your Answers Secret***

***First***, we make sure you remove your name from your survey booklet before you answer the questions.

***Second***, we ask you to seal the booklet before you give it back to us.

***Third***, we package your booklet with all the others and send it back to our offices in North Carolina immediately after you finish the survey. ***No one in your school district or town ever sees the inside of your booklet.***

***Fourth***, the people in North Carolina who key the students' answers into a computer never see your name.

***Finally***, we match your ID code with your name ***ONLY*** to hand out your booklet. (We used a number last year; now we use a bar code.) Even the people who analyze the data never know how you answered the questions.

***No one will ever try to connect your name with your answers!***

### ***So why do we have ID codes on the booklets?***

The study we are working on is called a "longitudinal study." That means we want to know how much a particular group of people might change during a long period of time. In this case, we need to find out what students think about alcohol, tobacco, and other drugs, and how they change as they grow older.

At the end of the study, we need to put the surveys together in a way that lets us see how people have changed. The only way we can put them together is with a code on each booklet. We don't need to know who each student is, but we do need to know that we have the booklets for the ***SAME*** student. So that's why we put ***BOTH*** your name and a code on your booklet ***UNTIL*** it gets to you. After you take your name sticker off the booklet, we don't need to know your name any more.

***Thanks for your help on this survey!***

***On the inside back cover of this booklet is a peel-back sticker. Please use it to seal your booklet, then turn the booklet in when you are asked to do so.***



***Appendix C:  
Example of Supplemental  
Student Survey Questions***

---

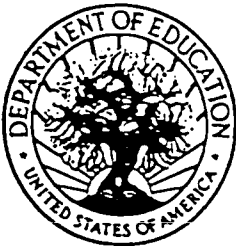
Place label here

Sample School District

### Supplemental Student Survey Questions

The following questions ask about some of the classes, programs, or activities you may have been in. For each question, please check one box.

Question		No	Yes
S-1.	Have you ever been referred to the <u>intervention program</u> ?	<input type="checkbox"/> 1	<input type="checkbox"/> 2
S-2.	Have you ever participated in a <u>T.A.L.K. Group</u> ?	<input type="checkbox"/> 1	<input type="checkbox"/> 2
S-3.	Have you ever had classes of a program called <u>DARE</u> ?	<input type="checkbox"/> 1	<input type="checkbox"/> 2
S-4.	Have you ever participated in the <u>Taking Charge</u> program?	<input type="checkbox"/> 1	<input type="checkbox"/> 2
S-5.	Have you ever been a <u>Peer Mediator</u> for another student?	<input type="checkbox"/> 1	<input type="checkbox"/> 2
S-6.	Have you ever had another student be a <u>Peer Mediator</u> for you?	<input type="checkbox"/> 1	<input type="checkbox"/> 2
S-7.	Have you ever participated in a S.A.D.D. (Student Against Drunk Driving) Club?	<input type="checkbox"/> 1	<input type="checkbox"/> 2
S-8.	Have you ever had lessons in a health class that taught about tobacco, alcohol, or other drugs?	<input type="checkbox"/> 1	<input type="checkbox"/> 2



U.S. DEPARTMENT OF EDUCATION  
Office of Educational Research and Improvement (OERI)  
Educational Resources Information Center (ERIC)



## NOTICE

### REPRODUCTION BASIS

☐

This document is covered by a signed "Reproduction Release (Blanket)" form (on file within the ERIC system), encompassing all or classes of documents from its source organization and, therefore, does not require a "Specific Document" Release form.

☒

This document is Federally-funded, or carries its own permission to reproduce, or is otherwise in the public domain and, therefore, may be reproduced by ERIC without a signed Reproduction Release form (either "Specific Document" or "Blanket").